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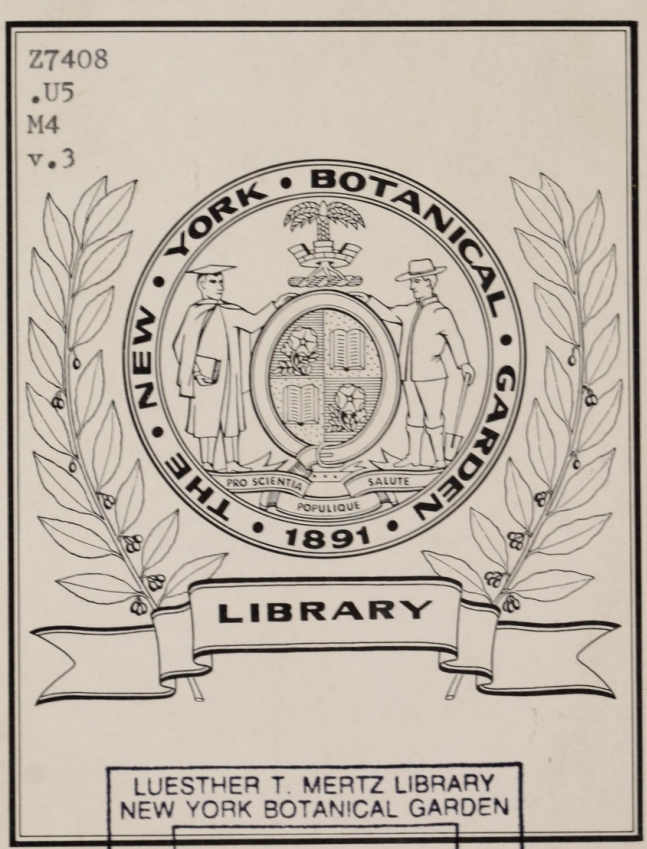

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A BIBLIOGRAPHY OF

AMERICAN NATURAL HISTORY

VOL. III

A Bibliography of

American Natural History

The Pioneer Century, 1769-1865

The Rôle Played by the Scientific Societies; Scientific Journals; Natural History Museums and Botanic Gardens; State Geological and Natural History Surveys; Federal Exploring Expeditions
In the Rise and Progress of American Botany, Geology, Mineralogy, Paleontology and Zoology

BY

MAX MEISEL, B.S., B.L.S.
Formerly of the Science Division, N. Y. Public Library

VOLUME III

The Institutions Founded or Organized between 1845 and 1865. Bibliography of Books. Chronological Tables. Index of Authors & Institutions. Addenda to Volume I.

THE PREMIER PUBLISHING CO.
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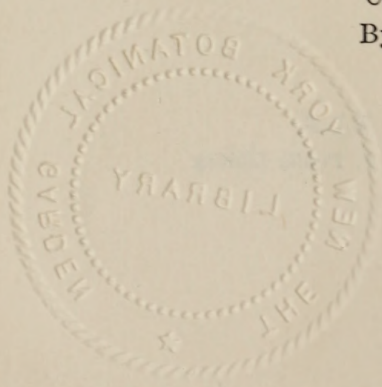

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To

DR. JOHN HENDLEY BARNHART

Bibliographer, N. Y. Botanical Garden

The present generation finds itself the heir of a vast patrimony of science, and it must needs concern us to know, the steps by which these possessions were acquired and the documents by which they are secured to us and our heirs forever.

WILLIAM WHEWELL.

PREFACE

A detailed outline of the scope and plan of this volume is given in the preface to the first volume. The present volume continues with the bibliographical studies of those institutions founded or organized between 1845 and 1865 inclusive.

This is followed by a Bibliography of Books and Miscellaneous Articles on Natural History published separately or in serials of institutions not considered individually in the Bibliography proper. Then follow the Chronological Tables of Publications; the Index of Authors and Naturalists; and the Index of Institutions, which lists many institutions not treated specifically in the body of the work, but whose names appear in connection with the titles enumerated in the section entitled: Bibliography of Books.

The first Appendix contains forty pages of material additional to volume one covering the Annotated Bibliography, the Subject Index, the Geographic Index and the Bibliography of Biographies. These sections should be consulted in conjunction with those in the first volume.

A List of Errata and Addenda for the three volumes is also appended. Through a regrettable oversight the name of Prof. Charles Upham Shepard (1804–1886) has been misspelled Shephard in volumes one and two.

I am deeply indebted to Sabin's classic "Dictionary of Books relating to America," and to the Library of Congress printed cards for much of the bibliographical information to be found in the Bibliography of Books and Articles. To Miss Alice Atwood of the Library of the U. S. Department of Agriculture I am very grateful for her collation of F. A. Michaux's "N. A. Sylva" appearing on pages 379 to 381.

I wish to acknowledge my appreciation of the many courtesies extended and the assistance rendered by Mr. H. B. Weiss of the N. J. State Dept. Agriculture; Dr. L. M. Klauber of the San Diego Society of Natural History; Miss Claribel Barnett and her staff at the Library of the U. S. Dept. Agriculture; Mr. F. E. Brasch, Mr. Dieserud and other members of the staff of the Library of Congress; Miss Mabel Colcord and Mr. Joe S. Wade of the U. S. Bureau of Entomology; to Dr. Charles W. Richmond, curator of Birds, U. S.

JUN 21 1967

National Museum; the Library of the U. S. Geological Survey; Dr. Theodore S. Palmer of the U. S. Biological Survey; Mr. K. K. Mackenzie of Maplewood, N. J.; Mr. Robert Schlachter. My wife, Blanche Gelb Meisel, very kindly verified all the references given in the Index to the Authors and Naturalists.

To the late Mr. A. E. Urban, who supervised the printing of volumes 1 and 2, and to Mr. Jaques Cattell, who supervised the printing of volume 3, and their associates of the Science Press Printing Company I am deeply grateful for their splendid cooperation in seeing through the press a difficult task.

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ARRANGED CHRONOLOGICALLY BY THE RESPECTIVE DATES OF FORMATION OR ORGANIZATION. (See Table of Contents.)

ABERT'S EXPEDITION ON THE UPPER ARKANSAS (1845)

History

In 1845, Lt. J. W. Abert conducted an expedition for a survey of Purgatory Creek, the waters of the Canadian and False Washita. He was detached from Bent's Fort, and travelled down the Arkansas to the mouth of Purgatory Creek and thence up the stream 15–18 miles.

The journey was begun August 9 and terminated November 12, 1845. Abert's Report was rendered June 12, 1846. It contains many observations on the natural history of the regions explored. For details of the route followed, see WARREN, p. 52. (see Annot. Bibliog. in v. 1.)

Report

1846 ABERT, J[ames] W[illiam]. . . . Report of an expedition on the Upper Arkansas and through the country of the Camanche Indians, in the fall of the year 1845. Wash. 1846. 75 p. 11 pl. sect. map. (In U. S. 29th Cong., 1st sess., Sen. Doc. v. 8, no. 438) Serial no. 477.

Report rev. in Amer. J. Sc. v. 53, (ser. 2, v. 3), p. 301–2. Mar. 1847.

AMERICAN QUARTERLY JOURNAL OF AGRICULTURE & SCIENCE (1845)

History

The first number of the AMERICAN QUARTERLY JOURNAL OF AGRICULTURE & SCIENCE under the editorship of Drs. Ebenezer Emmons and A. J. Prime was issued January 1, 1845. In all, six volumes were issued. With volume 5, the Journal became a monthly. Due chiefly to the connection with the Journal of Emmons, the New York State Geologist, many papers on the natural history subjects were published. Abstracts of the Proceedings of the ASSOCIATION OF AMERICAN GEOLOGISTS & NATURALISTS (1840), q.v., appeared in the Journal.

Bibliography

1845–47 (THE) AMERICAN QUARTERLY JOURNAL OF AGRICULTURE AND SCIENCE; conducted by Drs E. Emmons, and A. J. Prime. Albany & N. Y., 1845–47. 6v. illus. pl.

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Papers on Natural History

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HUN, Thomas. Food of plants. p. 9–23.

v. 1, no. 2, April.

————. Food of animals. p. 185–204.

EMMONS, Ebenezer. Beds of oyster shells on the Hudson River. p. 215–17.

————. Insects injurious to vegetation, no. 1. p. 250–54.

From Harris's Report on Insects in the Zool. & Bot. Surv. Mass. (1837), q. v.

FITCH, Asa. Insects injurious to vegetation, no. 2: insects of the genus Cecidomyia, including the Hessian and wheat fly. p. 255–69, 1 pl. 8 fig.

v. 2, no. 1, July.

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ANON. Relations of animals and vegetables. p. 15–21.

EMMONS, Ebenezer. On drift and the changes which have been effected in the position of soils, etc. p. 26–33.

Comm. to Assoc. Amer. Geol. & Nat. (1840), in May, 1844.

————. On the supposed Zeuglodon Cetoides of Prof. Owen. p. 59–63, 1 pl. (See also p. 366).

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————. On the agricultural adaptations of that portion of the Taconic region, which comprises the counties of Dutchess, Columbia, Rensselaer and Washington in the state of New York, and Berkshire, in the state of Massachusetts. p. 179–98.

————. The lost races. p. 199–202.

PRIME, A. J. Great American Mastodon. p. 203–12.

BARLOW, Thomas. On the study of entomology. p. 218–20.

BEMENT, C. N. A birdseye view of the vegetable productions, climate, soil and agriculture of the different countries of the American continent. p. 221–26.

FITCH, Asa. Insects injurious to vegetation : no. 3 : the wheat-fly. p. 233–64.

Also in N. Y. State Agric. Soc. (1832). Trans. v. 5, p. 255–90, 1 pl. 1845.

1846 **v. 3, no. 1, January.**

SMITH, J. A. Central cavity of the Mastodon. p. 19–22.

Note by E. EMMONS. Rd. before N. Y. Lyc. Nat. Hist. (1817), in 1845 (Dec.).

BARLOW, Thomas. Entomology : novel productions. p. 45–6.

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EMMONS, Ebenezer. Mineral and agricultural resources of New York. p. 169–95.

————. The New York system. p. 199–202.

————. Remarks on the Taconic System. p. 202–9.

Com. to Assoc. Amer. Geol. & Nat. (1840), Sept. 1846.

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FITCH, Asa. Insects injurious to vegetation : no. 4, the Hessian Fly. p. 244–64, 1 pl. (& p. 257*–264*).

Also in N. Y. State Agric. Soc. (1832). Trans. v. 6, p. 316–73. 1847.

Contains a bibliographical sketch. Cont. in next entry.

1847 **v. 5, no. 1, January.**

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ANON. Specific character. p. 57–9.

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BUCKLEY, S. B. On the grasses : no. 2. p. 233–46.

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HOUGH, F. B. Observations on the geology of Lewis County, N. Y. p. 267–74.

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v. 6, no. 10, October.

HALDEMAN, S. S. Description of several new and interesting animals. p. 191–94.

————. Report on the supposed identity of Atops trilineatus (Emmons), with Triarthrus Beckii. p. 194–95.
Com. to Assoc. Amer. Geol. & Nat. (1840), Sept. 1847. Also in Amer. J. Sc. (1818), ser. 2, v. 5, p. 107–8. Jan. 1848. Remarks by Hall, on p. 322–27. May, 1848.

BARLOW, Thomas. Atropos pulsatorius. p. 195–96.

BEMENT, C. N. Osier willow—its cultivation. p. 197–98.

v. 6, no. 11, November.

ANON. Mining Report . . . p. 240–46, illus.
Erroneously numbered, p. 192–98.

CLEVELAND ACADEMY OF NATURAL SCIENCE (1845)

History

"Mr. J. D. Whelpley of Cleveland, Ohio, announced the formation of a Society of Natural History at that place, for which he requested donations of minerals." From AMERICAN JOURNAL OF SCIENCE. v. 28, p. 189. April, 1835. This announcement was made at a meeting of the New York Lyceum of Natural History, held on Sept. 22, 1834. The Society seems to have been short-lived. It was, however, the forerunner of the Society organized in 1845 as the CLEVELAND ACADEMY OF NATURAL SCIENCE.

"This Academy was organized Nov. 24, 1845, a public meeting of the citizens of Cleveland having been specifically called for the purpose. At this meeting certain officers were elected, who have, with some exceptions, been continued to the present time.

"The interest manifested by the citizens generally, in the Academy, has been shown, not only by their liberality in contributing the necessary funds for finishing and furnishing the room which contains the museum, but more especially by the general interest manifested in their attendance upon the public meetings of the Academy

. . . The ladies of Cleveland, likewise, generously contributed some four hundred dollars to the Academy . . . Under these favorable auspices, the Academy has commenced and has continued in active operation to the present time. During the winter months, upon each alternate Tuesday, for a number of years, a series of public lectures has been given upon some subject connected with natural science; at the regular meetings between the lectures, written papers on various subjects, having been presented and read and a general discussion held upon any scientific subject which may be offered. It is to the conversational meetings especially, we are to look for valuable contributions in the various branches of natural science, and for the purposes of rendering the labors of the Academy more generally useful, it has been determined to print the record of their transactions in this Journal from time to time.

"The collection of specimens of natural history, particularly in the departments of ornithology and conchology, belonging to the Academy is undoubtedly one of the best in the country. Not only does it contain the fine cabinet of Dr. Kirtland, which has generously been donated by him to the Academy, but also the exceedingly beautiful specimens of the sylvias and water birds of the west, presented by Mr. R. K. Winslow; in addition to these valuable contributions of birds at home, which have from time to time been increased through the kind offices of the gentlemen named and the Hon. Wm. Case, Capt. B. Stannard, and others, large and most valuable donations of foreign birds, chiefly through the assiduous attention of the Hon. Elisha Whittlesey, have been received from time to time. The latest donation of this kind was from Lieut. S. L. Phelps, U. S. N., comprehending complete sets of Chilian birds, in excellent preservation, and to enhance more this contribution, through the courtesy of Prof. S. F. Baird and Mr. J. Cassin, the distinguished ornithologist, they were all named and labelled previous to their reception . . . A fine geological and mineralogical cabinet has also been donated by Prof. St. John & Prof. Cassels, and a complete suite of fossils by Dr. J. S. Newberry; the museum also contains a great variety of fresh water and marine shells . . . so that the collection may be justly ranked as second to but few in the U. S." From Annals of Science (1852), v. 2, p. 1, Jan. 1854.

The officers during the existence of the Academy were: Jared P. Kirtland, president; T. D. Garlick, L. J. Cassels, C. F. Winslow, vice-presidents, 1845–1855; Sherlock J. Andrews, Charles W. Heard,

William D. Beattie, vice-presidents, 1855–1860; J. S. Newberry, recording secretary; Samuel St. John, corresponding secretary. John Kirkpatrick, Thomas Brown and J. H. Klippart, editors of the Ohio Farmer, were curators of the Academy.

For the years 1853 and 1854, the Proceedings of the Society were published in the ANNALS OF SCIENCE (1852), q.v. From 1855 to 1860, they were published in the OHIO FARMER. In 1874 a volume containing the Proceedings and Papers of the Academy were published at Cleveland, which contained reprints of the papers originally published in the periodicals mentioned above. In the PAPERS ON NATURAL HISTORY below, "P" indicates the 1874 volume.

Bibliography

1874 CLEVELAND ACADEMY OF NATURAL SCIENCE. Proceedings . . . 1845 to 1859; published by a gentleman of Cleveland. Cleveland, 1874. 295 p. port.

Abstracts appeared in Annals of Science (1852), q.v., v. 2, p. 43–4, 70, 99–100, 126. 1854. Others appeared in the Ohio Farmer.

1918 CUTLER, H. G. The Academy of Natural Sciences, and its founders. Cleveland, 1918. (In AVERY, E. M. Cleveland and its environs. v. 1, p. 555–57)

Papers on Natural History

1851 AGASSIZ, Louis. Letters addressed to J. P. Kirtland, president of the Academy. P. p. 178–89.

Sent during 1851 and 1852.

KIRTLAND, J. P. Peculiarities of climate, flora and fauna of the south shore of Lake Erie, in the vicinity of Cleveland, Ohio. P. p. 165–71. Rd in Dec.

Also in Amer. J. Sc. (1818), v. 63 (ser. 2, v. 13), p. 215–19. March, 1852.

1852 HARRIS, T. W. Letters to J. P. Kirtland . . . P. p. 189–94.

Written July 26, 1852 & Feb. 15, 1853.

BACHMAN, John. Letter to J. P. Kirtland . . . P. p. 194–96.

Written March 26, 1852.

KIRTLAND, J. P. Description of a new species of Libythea and of Macroglossa. P. p. 171–73.

Also in Amer. J. Sc. (1818), v. 63 (ser. 2, v. 13), p. 336–38, illus. May, 1852.

1853 NEWBERRY, J. S. Fossil plants from the Ohio coal basin. P. p. 26–53, illus. Rd in Jan. et seq.

Also in Annals Sc. (1852), v. 1, p. 95–7, 106–8, 152–53, 164–65; & v. 2, p. 2–3, illus. 1853.

KIRTLAND, J. P. Poecilosoma erythrogastrum. P. p. 15–6, illus. Rd Nov. 21.
Also in Annals Sc. (1852), v. 2, no. 1, p. 4–5, illus. 1854.

————. New locality of Limnea megasoma of Say. P. p. 53. Rd Nov. 21.

————. Diurnal Lepidoptera of northern and middle Ohio. P. p. 17–25. Rd Nov. 21, 1853 & Jan. 17, 1854.
Also in Annals Sc. (1852), v. 2, p. 45–6, 73–5. 1853.

CASSELS, L. J. Mosses found in the vicinity of Cleveland, Ohio. P. p. 65–74, illus. Rd Nov. 21, 1853 & Jan. 17, 1854.
Also in Annals Sc. (1852), v. 2, p. 3–4, 46–7, 102–3, illus. 1854.

1854 GARLICK, Theodatus. On the viviparous or ovoviviparous characters of a species of the Salmonidae. P. p. 64–5. Rd Jan. 17.
Also in Annals Sc. (1852), v. 2, p. 44. 1854.

KIRTLAND, J. P. Alburnus nitidus (silvery minnow). P. p. 74–5, illus. Rd Jan. 17.
Also in Annals Sc. (1852), v. 2, p. 44–5, illus. 1854.

BRAINERD, J[ehu]. The ocean: its origin and phenomena. P. p. 57–64, illus. Rd Jan. 17.
Also in Annals Sc. (1852), v. 2. p. 75–6, 101–2, illus. 1854. Synopsis of a lecture.

NEWBERRY, J. S. Note on the vegetation of the drift. P. p. 76–80. Rd Feb. 7.
Also in Annals Sc. (1852), v. 2, p. 76–7. 1854.

KIRTLAND, J. P. Revision of the species belonging to the genus Esox, inhabiting Lake Erie and the River Ohio. P. p. 83–5, illus. Rd Feb. 7.
Also in Annals Sc. (1852), v. 2, p. 78–9, illus. 1854.

GARLICK, Theodatus. On the artificial reproduction of fishes. P. p. 86–91. Rd Feb. 7.
Also in Annals Sc. (1852), v. 2, p. 71–3. 1854.

HARRIS, T. W. On the larva of Vanessa acutus (sharp-tailed minnow). P. p. 96, illus. Rd Mar. 21.
Also in Annals Sc. (1852), v. 2, p. 101, illus. 1854.

WHITTLESEY, Charles. The Alleghany coal-field. P. p. 99–113. Rd April 17.
Also in Annals Sc. (1852), v. 2, p. 127–32. 1854.

1856 KIRTLAND, J. P. The Guava-Psidium cattlyanum. P. p. 117–18. Rd Nov. 14.
Also in Ohio Farmer.

1857 ————. A rare Reptile (Tropidonotus erythrogaster of Shaw). P. p. 129–31. Rd Aug. 27.
Also in Ohio Farmer.

————. Letter on natural history of Laporte County, Indiana. P. p. 131–32. Written Aug. 28.
Also in Ohio Farmer.

————. A rare bird (Lestris Richardsonii). Rd in Nov. P. p. 133.
Also in Ohio Farmer.

1858 BRAINERD, J[ehu]. Analysis of Berea sandstones. P. p. 144–46. Rd Jan. 8.
Also in Ohio Farmer.

WHITTLESEY, Charles. Chronology of trees—comparison of layers of growth. P. p. 147–51. Rd Jan. 22.
Also in Ohio Farmer.

KIRTLAND, J. P. Mounted birds from northern Ohio in the Academy's Museum. P. p. 201–87.
Also in Ohio Farmer.

FREMONT'S EXPLORATIONS IN UPPER CALIFORNIA (1845)

History

During 1845, 1846 and 1847, J. C. Fremont continued his explorations begun in FREMONT'S EXPED. TO OREGON & CALIFORNIA (1843), q.v. Explorations were begun Aug. 1845, and Fremont was assisted by E. M. Kern, W. G. Peck, Jr., and J. W. Abert. He made a Report in June, 1848, which was published the same year. For routes followed, see WARREN, p. 49–51. (see Annot. Bibliog. in v. 1.)

Bibliography

See also FREMONT'S EXPED. BETWEEN MISSOURI RIVER & ROCKY MTS. (1842) : Bibliography.

1848 ANON. On the expediency of publishing the results of the late exploring expedition of Capt. J. C. Fremont to California and Oregon, as a national work. Washington, 1848. 8 p. (In U. S. 30th Cong., 1st sess., Sen. Rept. no 226) Serial no. 512.

1876 KERN, E..... M..... . . . Journal of an exploration of Mary's or Humboldt River, Carson Lake, in 1845, under Fremont. Washington, 1876. (In SIMPSON, J. H. Rept. Explor. across Great Basin of Utah. p. 475–86).

1928 NEVINS, Allan. Fremont the West's greatest adventurer. . . . N. Y. Harper, 1928. 2 v. illus. pl. port.

Report

(1) Senate ed. Serial no. 511.

1848 FREMONT, John Charles. . . . Geographical memoir upon Upper California in illustration of his map of Oregon and California. . . .

Washington, Wendell & Van Benthuysen, 1848. 65 p. map. (In U. S. 30th Cong., 1st. sess., Sen. Misc. Doc. no. 148) Serial no. 511.

(2) House ed. Serial no. 544.

1849 ————. Same . . . Wash. 1849. 40 p. map. (In U. S. 30th Cong., 2d sess., H. Misc. Doc. no. 5) Serial no. 544.

Papers in Society Transactions

See FREMONT'S EXPED. TO OREGON & CALIFORNIA (1843): Papers in Society Transactions.

ABERT'S EXAMINATION OF NEW MEXICO (1846)

History

In 1846 Lt. J. W. Abert was instructed by the War Department to make an examination of New Mexico, while attached to the force under Gen. Kearny. Lt. Abert was assisted by Lt. Peck.

The expedition left Fort Leavenworth, June 27, 1846, and returned there in March, 1847, after completing the examination. His Report was published in 1848. Some natural history observations of the country traversed were made. For details of route followed, see WARREN, p. 53–4. (see Annot. Bibliog. in v. 1.)

Augustus Fendler working under instructions from the Smithsonian Institution for the collection of botanical specimens in New Mexico, set out with Abert's party. See PAPERS below for descriptions of his collections.

Bibliography

1882 ABERT, J[ames] W[illiam]. Memoranda in regard to the various kinds of birds, which I took note of in a march across the prairies from Fort Leavenworth, Mo., to Santa Fe, New Mexico, and again via the Santa Fe trail, in the years 1845 and 1847. (In Cincinnati Soc. Nat. Hist. Jour. v. 5, p. 57–9. 1882.)

Report

(1) Senate ed., Serial no. 506.

1848 ABERT, J[ames] W[illiam]. Report and map of the examination of New Mexico in the years 1846–47, while attached to the command of General Kearny. Washington, 1848. 132 p. 24 pl. map. (In U. S. 30th Cong., 1st sess., Sen. Ex. Doc. v. 4, no. 23). Serial no. 506.

(2) House ed., Serial no. 517.

————. Same. Wash. 1848. (In U. S. 30th Cong., 1st sess., H. Ex. Doc. v. 4, no. 41, p. 417–548, 24 pl. map). Serial no. 517. It is included here in a Report of EMORY'S RECONN. FORT LEAVENWORTH TO SAN DIEGO (1846), q. v., as an appendix.

CONTENTS:

p. 1–130 ABERT, J. W. Report.
Repr. in Serial 517, p. 417–546.

p. 131– 32 BAILEY, J. W. Notes concerning the minerals and fossils collected by Lt. J. W. Abert, while engaged in the geographical examination of New Mexico. 3 pl.
In Serial 517, p. 547–48, 3 pl.

Papers in Society Transactions

1847 ABERT, J. W. A supposed new species of quail inhabiting New Mexico.
Rd before Phila. Acad. Nat. Sc. (1812), June 29, 1847.
In its Proc. v. 3, p. 221–22.

1848 GRAY, Asa. Plantae Fendlerianae Novi-Mexicanae: an account of a collection of plants made chiefly in the vicinity of Santa Fe, New Mexico, by Augustus Fendler; with descriptions of the new species; critical remarks, and characters of other undescribed or little known plants from surrounding regions.
Rd before Amer. Acad. A. & Sc. (1780), Nov. 8, 1848. In its Mem. n. s. v. 4, pt. 1, p. 1–116. 1849.

SULLIVANT, W. S. Contributions to the Bryology and Hepaticology of North America; pt. 2.
Rd before Amer. Acad. A. & Sc. (1780), Nov. 8, 1848. In its Mem. n. s. v. 4, pt. 1, p. 169–76, 5 pl. [58 fig.]

CHARLESTON MEDICAL JOURNAL (1846)

History

In 1846, the CHARLESTON MEDICAL JOURNAL & REVIEW, made its first appearance at Charleston, S. C., under the name of the SOUTHERN JOURNAL OF MEDICINE & PHARMACY, edited by Messrs. J. Lawrence Smith, the mineralogist, and Dr. S. D. Sinkler. With the third volume, the name was changed to that noted in the title.

It was published bi-monthly, beginning with January, 1847, number.

The natural history material published in the Journal was due to a group of southern naturalists, consisting of Dr. John Bachman

H. W. Ravenel, Myddelton Michel, F. P. Porcher, F. S. Holmes. Below under PAPERS ON NATURAL HISTORY, will be found the articles on natural history published in volumes one to ten.

Bibliography

(1), v. 1–2

1846 SOUTHERN JOURNAL OF MEDICINE AND PHARMACY; ed. by J. Lawrence Smith and S. D. Sinkler, Charleston, S. C., March, 1846–Dec. 1847. 2 v.

v. 2, ed., by P. C. Gaillard & H. W. De Saussure.

Continued as (2), v, 3–15

1848 CHARLESTON MEDICAL JOURNAL AND REVIEW; ed. by J. D. Cain and F. P. Porcher. Charleston, S. C., Jan. 1848–1860. 13 v.

v. 3–4, ed. by Messrs Gaillard & De Saussure.
v. 5–8, ed. by Messrs. Cain & Porcher.
v. 9–15, ed, & pub. by C. Happoldt.

Papers on Natural History

1846 **v. 1, no. 3, May**

MICHEL, Myddelton. Organogeny, or the science of organization. p. 241–59.

1847 **v. 2, no. 3, May**

PORCHER, F. P. A medico-botanical catalogue of the plants and ferns of St. John's, Berkeley, S. C. p. 255–86.

Cont. in next number (q.v.).

v. 2, no. 4, July

————. A catalogue of phaenogamous plants and ferns, native, naturalized and exotic, collected in the parish of St. John's, Berkeley, S. C. lat. 81° 10′ long. 33° 15′ lands lying between the waters of Cooper and Santee Rivers, forty miles from the ocean; twenty feet above tide level, embracing a growth of oak, hickory, swamp and river trees. p. 397–417.

Cont. from preceding no. (q.v. above).

v. 2, no. 5, September

HOLMES, F. S. Description of a Bezoar stone found in the stomach of a buck (Cervus virginianus, GM.). p. 527–30.

1848 **v. 3, no. 6, November**

————. Notes on the geology of Charleston. p. 655–71.

Also in Amer. J. Sc. (1818), v. 57 (ser. 2, v. 7), p. 187–201. March, 1849.

1849 **v. 4, no. 1, January**

RAVENEL, H. W. An enumeration of some new phaenogamous plants, not heretofore published as inhabiting South Carolina found in the vicinity of the Santee Canal. p. 32–8.

v. 4, no. 4, July

————. Contributions to the cryptogamic botany of South Carolina. p. 428–33.

Cont. below in v. 5, no. 3 (q.v.).

v. 4, no. 6, November

RAVENEL, Edmund. On the medical topography of St. John's, Berkeley, S. C., and its relations to geology. p. 697–704.

1850 **v. 5, no. 2, March**

BACHMAN, John. An investigation of the cases of hybridity in animals on record, considered in reference to the unity of the human species. p. 168–97.

v. 5, no. 3, May

RAVENEL, H. W. Contributions to the cryptogamic botany of South Carolina. p. 324–27.

Cont. from v. 4, no. 4, (above, q.v.) & cont. below in v. 6, no. 2 (q.v.)

MORTON, S. G. Letter to the Rev. John Bachman on the question of hybridity in animals considered in reference to the unity of human species. p. 328–44.

v. 5, no. 4, July

BACHMAN, John. A reply to the letter of Samuel George Morton, M.D., on the question of hybridity in animals considered in reference to the unity of human species. p. 466–508.

v. 5, no. 5, September

————. Second letter to Samuel G. Morton on the question of hybridity in animals, considered in reference to the unity of human species. p. 621–60.

v. 5, no. 6, November

BRAUCH, J. Contributions to the indigenuous materia medica of S. C. p. 742–44.

MORTON, S. G. Additional observations on hybridity in animals and on some collateral subjects, being a reply to the objections of the Rev. John Bachman. p. 755–805.

1851 **v. 6, no. 1, January**

MICHEL, Myddelton. Researches on the generation and development of the Opossum (Didelphis Virginiana). p. 111–15.

Also rd before Amer. Assoc. Adv. Sc. (1848), Mar. 13, 1850. In its Proc. v. 3, p. 60–4. 1850.

MORTON, S. G. Notes on hybridity, designed as a supplement to the memoir on that subject in the last number of this Journal. p. 145–52.

v. 6, no. 2, March

RAVENEL, H. W. Contributions to the cryptogamic botany of South Carolina. p. 190–99.

Previous pt. pub. in v. 5, no. 3, (above, q.v.).

v. 6, no. 3, May

MORTON, S. G. Notes on hybridity designed as a further supplement to a Memoir on that subject in a former number of this Journal . . . p. 301–8.

————. Notes on hybridity in animals, and on some collateral subjects . . . being a third letter . . . p. 373–83.

BACHMAN, John. Additional observations on hybridity in animals, and on some collateral subjects . . . p. 383–96, 598.

1854 **v. 9, no. 5, September**

————. Types of mankind: an examination of a few statements of Prof. Agassiz, in his "Sketch of the natural provinces of the animal-world, and their relation to the different types of men." p. 627–59, 790–806.

1855 **v. 10, no. 2, March**

————. An examination of the characteristics of genera and species as applicable to the doctrine of the unity of the human race. p. 201–22.

v. 10, no. 4, July

————. An examination of Prof. Agassiz's "Sketch of the natural provinces of the animal world, and their relation to the different types of man . . . p. 482–534.

Also pub. as a separate. Charleston, 1855. 54 pp. Agassiz's paper in New Phil. Jour. Edinb. v. 57, p. 347–63. 1854.

CONCORD NATURAL HISTORY SOCIETY, CONCORD, N. H. (1846)

History

The Concord, N. H., Natural History Society had its origin in a meeting held in the office of Gen. Charles H. Peaslee on Feb. 14, 1846. On the 28th of the same month, the following officers were elected: William Prescott, president; N. G. Upham and Paul Wentworth, vice-presidents; William Kent, recording secretary; Asa Fowler, corresponding secretary; William C. Prescott, curator and librarian. Official announcement of the organization of the Society to the scientific world was made through the American Journal of Science, v. 52 (n. s. v. 2), p. 144. Nov. 1846.

". . . The Natural History Society has enrolled more than 200 members (resident) and about 120 corresponding members . . . It has a hall fifty by thirty feet and a spacious room adjoining, in Ayer's Block on Main Street, at the southeast corner of the State House yard. In these are contained five or six hundred specimens in geology and mineralogy; one or two hundred in conchology; a variety of insects; interesting artificial curiosities and the nucleus of a library. Meetings are held Saturday afternoons with a view to mutual self-improvement."

"The interest in the Society, thus early manifested, continued for some time; its cabinet was enriched; addresses were delivered and papers read at its meetings. It became also the depository of numerous specimens of the New Hampshire Geological Survey (1839), q.v., collected by Dr. C. T. Jackson in his scientific survey of the state. But at last, after eighteen years of more or less active existence, it lost, in a fire, which, on the 22d of the April, 1864, destroyed the two upper stories of Ayer's Block, its hall with the valuable contents thereof, and never afterward renewed its praiseworthy efforts."

"Dr. William Prescott, a diligent scientist, and the Society's first president, had also his private cabinet of geology, mineralogy, conchology, ornithology, etc., laboriously collected and scientifically arranged in a hall connected with his residence." LYFORD, J. O. 1903. v. 1, p. 388–90. (See Bibliography below).

Bibliography

1856 Bouton, Nathaniel. The Concord Natural History Society. Concord, N. H., 1856. (In his history of Concord. p. 1475–76).

The same volume contains on p. 540–50: The physical and descriptive history of Concord, by William Prescott and Nathaniel Bouton.

1903 Lyford, James O., ed. The Concord Natural History Society. Concord, N. H., 1903. (In History of Concord, prepared under supervision of the City History Commission. v. 1, p. 388–90).

EMORY'S RECONNAISSANCE FROM FORT LEAVENWORTH TO SAN DIEGO (1846)

History

Between June 27, 1846 and January 1847, Lieut. W. H. Emory conducted a military reconnaissance between Fort Leavenworth and

San Diego, Cal., by way of part of the Arkansas, Del Norte and Gila Rivers. He was accompanied by Lieut. J. W. Abert, W. G. Peck, S. P. Cooke and J. M. Stanley. Norman Bestor and Lt. A. R. Johnston were also members of the expedition.

Emory's Report was published in 1848. John Torrey described the plants collected and George Engelmann, the Cactaceae. J. W. Abert described the other natural history collections.

For details of the routes followed see Warren, p. 52–3. (see Annot. Bibliog. in v. 1.) The House edition of the Report also contained ABERT'S EXAMINATION OF NEW MEXICO (1846), q.v.

Bibliography

1849 FREMONT, J. C., and EMORY, W. H. Notes of travel in California: comprising the prominent geographical, agricultural, geological and mineralogical features of the country; also, the route to San Diego, in California, from the official reports of Col. Fremont and Major Emory. Dublin, J. M'Glashan, 1849. 311 p. 12°.

American ed., N. Y. Appleton, 1849. 29 + 83 p.

1855 EMORY, William H[elmsley]. . . . Extract from a Report of a Military Reconnaissance, made in 1846 and 1847. Washington, 1855. 22 p. (In Pacific Railroad Surveys. Final Reports. v. 2, pt. 6).

In Serials no. 759 or 792 of the Serial set of government documents. See also Pacific RR Surv. (1853).

1895 BARNHART, John Hendley. On the two editions of Emory's Report, 1848. (In Torrey Bot. Club. Bull. v. 22, p. 394–95. 1895).

1896 COVILLE, Frederick Vernon. Three editions of Emory's Report, 1848. (In Torrey Bot. Club. Bull. v. 23, p. 90–2. Mar. 1896).

Reports

(1) Senate ed., Serial no 505.

1848 EMORY, William H[elmsley]. . . . Notes of a military reconnaissance from Fort Leavenworth, in Missouri, to San Diego, in California, including part of the Arkansas, Del Norte, and Gila Rivers . . . made in 1846–47, with the advance guard of the "Army of the West" . . . Washington, 1848. 416 p. illus. 39 pl. (In U. S. 30th Cong., 1st sess., Sen. Ex. Doc. v. 3, no. 7). Serial no. 505.

(2) House edition, Serial no. 517.

————. Same . . . Washington, 1848. 614 p. illus. pl. map. (In U. S. 30th Cong., 1st sess., H. Ex. Doc. v. 4, no. 41). Serial no. 517.

Rev. in Amer. J. Sc. v. 56 (ser. 2, v. 6), p. 386–92. Nov. 1848.

CONTENTS:

Same in both editions.

p. 1–134 EMORY, W. H. Report.

p. 135–154 TORREY, John. Description of the plants collected. . . . 12 pl. Written Feb. 10, 1848.

p. 155–158 ENGELMANN, George. Descriptions of the collection of Cactaceae . . . Written Feb. 13, 1848.

p. 160–385 EMORY, W. H. Meteorological, astronomical and geographical observations . . .

p. 386–414 ABERT, J. W. On the natural history of the reconnaissance . . . Written Oct. 8, 1847.

In Serial no. 517, only.

p. 415– 16 COOKE, S. P. Report.

p. 417–548 ABERT, J. W. Report . . .

See ABERT'S EXAM. NEW MEXICO (1846).

p. 549– 63 COOKE, S. P. Report of march from Santa Fe, New Mexico to San Diego . . .

p. 565–614 JOHNSTON, A. R. Journal . . .

Papers in Society Transactions

1856 ENGELMANN, George. Synopsis of the Cactaceae of the territory of the United States and the adjacent regions . . . and corrections and additions . . .

Rd before Amer. Acad. A. & Sc. (1780) May 27, & Dec. 9, 1856. In its Proc. v. 3, p. 259–314, 345–46.

OHIO AGRICULTURAL REPORTS (1846)

History

The Annual Reports of the State Board of Agriculture of Ohio, first begun in 1846, contain a number of papers and articles on natural history matters. W. W. Mather, state geologist of Ohio (1837), q.v., was secretary of the Board for two years, 1851 and 1852. For a complete bibliography of the Reports as they appear in the Ohio State Documents, see HASSE, A. R. Index to the State Documents of Ohio. Wash. 1912. v. 1, p. 134. (Carnegie Inst. Wash. Pub., no. 85).

Papers on Natural History

1851 **v. 6**

MATHER, W. W. Essay on the soils of Ohio. p. 177–206.

WHITTLESEY, Charles. An essay on the character, composition, and improvement of the soils of Ohio. p. 494–507.

1855 **v. 10**

KIRKPATRICK, John. Notes on a few of the insects of northern Ohio injurious to the farmer or horticulturist. p. 243–48.

1857 **v. 12**

————. On insects beneficial to the agriculturist. p. 513–25.

ANON. Natural history of Ohio: geology and meteorology. p. 526–32.

WHITTLESEY, Charles. Outline sketch of the geology of Ohio. p. 533–47.

Condensed notice, repr. from Howe's "Historical Coll."

HIGGINS, Frank. A catalogue of the shell-bearing species of Mollusca inhabiting the vicinity of Columbus, Ohio, with some remarks thereon. p. 548–55.

KLIPPART, J. H. An essay on the origin, growth, diseases, varieties, etc., of the wheat plant. p. 562–81.

1858 **v. 13**

KIRKPATRICK, John. Bots and bot-flies. p. 330–37, illus.

SULLIVANT, Joseph. Communication on the use of the microscope. p. 338–40.

KIRKPATRICK, John. Descriptions of the rapacious birds of Ohio. p. 341–83, illus.

Originally pub. in Ohio Farmer.

1859 **v. 14**

NEWBERRY, J. S. Catalogue of the flowering plants and ferns of Ohio. p. 235–73.

*VON HEER. Alimentary plants: their influence in civilization. p. 274–86.

ANON. Effect of the various degrees of temperature upon the germination of plants. p. 286–300.

NEWBERRY, J. S. The rock-oils of Ohio. p. 605–18.

1860 **v. 15**

ANON. Principles of breeding. p. 279–316.

KIRKPATRICK, John. The army-worm. p. 350–58.

————. Description of two probably new Diptera, belonging to the Tachinidae, parasitic on the caterpillars of the army-worm moth (Leucania extranea—exorista leucaniae Ex. Osten-Sackenii). p. 358.

WHEATON, J. M. Catalogue of the birds of Ohio. p. 359–81, 480.

COLLINS, W. O. Report of the Senate Select Committee upon Senate Bill, no. 12, "For the protection of birds and game." p. 381–90.

1861 **v. 16**

ANON. Fungi. p. 404–20, illus.

KIRKPATRICK, John. The grain aphis. p. 429–33, illus.

1862 v. 17

WARDER, J. A. Lecture on plant life. p. 297–312.

*ST.-HILAIRE, Geoffrey, and KLIPPART, J. H. Zoological and geographical origin of domestic animals; transl. from the French of G. St. Hilaire, by J. H. Klippart. p. 319–39.

1863 v. 18

SALISBURY, J. H., and SALISBURY, C. B. Microscopic researches, resulting in the discovery of what appears to be the cause of the so-called blight in apple, pear and quince trees, and the decay in their fruit. p. 450–60.

————. Researches resulting in the discovery of the cause of the so-called "Blister and curl" in the leaves of the peach trees and the decay in the peach fruit; with observations on the development of the peach fungus (Sphaerotheca persicae, Salisb.). p. 460–79, illus.

1865 v. 20

ANDREWS, E. B. Geological report of Ohio. p. 249–64, illus.

SMITHSONIAN INSTITUTION, WASHINGTON, D. C. (1846)

History

"James Smithson, Esq., of England, left his property in trust to the United States of America to found at Washington an Institution which should bear his name and have for its objects the 'Increase and diffusion of knowledge among men.' This trust was accepted by the government of the United States, and an Act of Congress was passed August 10th, 1846, constituting the President and other principal executive officers of the general government, the Chief Justice of the Supreme Court, the Mayor of Washington, and such other persons as they might elect honorary members, an establishment under the name of the SMITHSONIAN INSTITUTION FOR THE INCREASE AND DIFFUSION OF KNOWLEDGE AMONG MEN." The members and honorary members of this establishment are to hold stated and special meetings for the supervision of the affairs of the Institution, and for the advice and instruction of a Board of Regents, to whom the financial and other affairs are entrusted." (Advertisement to the volumes of the Smithsonian Contributions to Knowledge.)

In 1835 the United States received the first intimation of the bequest of James Smithson (1765–1829), an English chemist, who

left the sum of $508,318.46 for the founding of an institution to be known as the Smithsonian Institution.

The exact use to which the money should be put and the manner and character of its employment were the subject of heated discussions and wranglings amongst the men of the day, laymen and scientists. The Institution was created by Congress under the act signed by President J. K. Polk on August 10, 1846, and was to comprise a national museum, a scientific library with copyright privileges, a national art gallery, etc., with especial emphasis on the publication of scientific results. The executive and administrative work was put under the general supervision of a Secretary, and the finances and trusteeship in the hands of a Board of Regents.

Joseph Henry, physicist, then of Princeton University (College of New Jersey), was selected to plan the organization and erect the superstructure. His all-embracing Programme of Organization appeared December 8, 1847, and laid the foundations for the Institution as it is to-day.

The corner-stone of the building to house the Institution was laid May 1, 1847, and the building was completed under the supervision of James Renwick, the architect, in 1855 at a cost of $315,000.

Henry was assisted by Charles C. Jewett as assistant secretary in charge of the Library, and shortly after by Spencer Fullerton Baird, naturalist, in charge of the collections, subsequently known as the National Museum, which since 1858 has received the support of the U. S. Congress.

In 1847, Henry issued his first annual report as the Secretary of the Institution, the first of a series, combining in general an administrative report with popular papers either descriptive of the collections or on scientific matters of importance. In 1848 was issued the first volume of the Smithsonian Contributions to Knowledge, which were to comprehend only original contributions to knowledge, the publication of which was subject to the recommendation of a Committee of Publication. In 1852 appeared the first paper belonging to the series known as the Miscellaneous Collections. (See below for dates of publication and bibliographical data respecting the various volumes published prior to 1866.)

In 1851, the Institution began the International Exchange System, by which it became the center for the exchange of foreign publications for those of the institutions of the United States. From

the beginning it aimed and succeeded in building up a great reference library of scientific transactions and proceedings, which was subsequently deposited in the Library of Congress as the Smithsonian deposit.

The Museum profited enormously from the collections brought together by the various exploring expeditions sent out by the federal government during the forties and fifties, notably the Pacific Railroad Surveys (1853), the U. S. & Mexican Boundary Survey (1848), the Rodgers & Ringgold North Pacific Exploring Expedition (1853), the Wilkes U. S. Exploring Expedition (1838), the collections of which were originally under the supervision of the National Institution for the Promotion of Science (1840), q. v., and Perry's U. S. Japan Expedition (1852), etc.

In addition the Institution received large numbers of specimens from various private collectors among the military, etc., and from agents of its own whom it sent out to make collections.

The scientific results of the Pacific Railroad Surveys (1853), q. v., were described by members of the staff of the Institution under the general supervision of the Assistant Secretary, Spencer F. Baird.

Only the salient facts in the history of the Institution have been outlined above as the various papers noted below in the BIBLIOGRAPHY cover every phase of the activities of the Institution and are readily accessible. Especial reference should be made to the volume edited by Dr. G. B. Goode, issued in 1897 (see below BIBLIOGRAPHY: 1897: Goode), celebrating the semi-centennial of the Institution, which comprehends excellent essays on every phase of the work of the Institution since its foundation, by members of its staff, and others.

Below will be found a chronological list of the PAPERS ON NATURAL HISTORY to be found in the publications of the Smithsonian prior to 1866, with the necessary bibliographical details and cross-references.

Bibliography

1841 DARLINGTON, William. A plea for a national museum and botanic garden, to be founded on the Smithsonian Institution at the City of Washington. West Chester, Pa., 1841. 12 p.

1842 RUSH, Richard, and DU PONCEAU, Peter Stephen. . . . On the Smithson bequest . . . Wash., Feb. 1842. (In Nat. Inst. Prom. Soc. Proc. v. 1. Bull. no 2. p. 201–8)

1844 BRENT, John Carroll. Letters on the National Institute, the Smithsonian legacy . . . and other matters connected with the interests of the District of Columbia. Wash., J. & G. S. Gideon, 1844. 90 p.

1847 SMITHSONIAN INSTITUTION. Annual Report of the Board of Regents of the Smithsonian Institution, showing the operations, expenditures and condition of the . . . for 1846–date. Wash. Smith. Inst., 1847–date.

Includes the Reports of the Secretary, Assistant Secretaries, Curators of Departments, and papers on natural history and on the physical sciences, of a popular character.

For dates of publication of the volumes 1–20, 1846–65, see below ANNUAL REPORT. For the natural history contents of these volumes see below PAPERS ON NATURAL HISTORY.

1848 ————. Smithsonian Contributions to Knowledge . . . Wash., Pub. by the Smithsonian Institution, 1848–date. v. 1–date, illus. pl. plans, tab. maps. 4°.

The dates of publication of these quarto volumes, and their contents will be found below under SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE: Dates of Publication.

1849 HENRY, Joseph. Organization of the Smithsonian Institution. Phila., 1849. (In Amer. Assoc. Adv. Sc. Proc. for 1848. v. 1, p. 82–90)

Rd before the Association, Sept. 23, 1848, at its first meeting.

1852 SMITHSONIAN INSTITUTION. Smithsonian Miscellaneous Collections . . . Wash., Pub. by the Smithsonian Institution, [1852]–date. v. 1–date.

The title-page of v. 1, is 1862, but the volume is a combination of several papers all of which were issued as separates before 1862, the first bearing the date, 1852. For the dates of the publication of the volumes pub. to 1866 see below SMITHSONIAN MISCELLANEOUS COLLECTIONS.

1855 [SILLIMAN, Benjamin]. The Smithsonian Institution. (In Amer. J. Sc. ser. 2, v. 20, p. 1–21. July, 1855)

A review of various public documents relative to the then mooted question as to the best manner in which to employ Smithson's bequest through the agency of the Institution.

1857 RHEES, William J[ones]. An account of the Smithsonian Institution, its founder, building, operations, etc., prepared from the Reports of Prof. Henry to the Regents, and other authentic sources. Washington, Thomas McGill, 1857. 54 p.

1859 SMITHSONIAN INSTITUTION. Catalogue of publications of Societies, and other periodical works in the library, of . . . July 1, 1858: Foreign works. Wash. 1859. 259 p. (In its Misc. Coll. v. 3, art. 4)

1862 ————. Smithsonian Miscellaneous Collections . . . Wash. 1862–date. v. 1–date.

See 1852 above.

[BAIRD, Spencer Fullerton]. . . . List of foreign correspondents of the . . . January 1862. Wash., May, 1862. 3+52 p. (In its Misc. Coll. v. 5, art. 3). Pub. no. 154.

————. Catalogue of publications of the Smithsonian Institution, corrected to June, 1862. Wash., June, 1862. 7+44 p. (In its Misc. Coll. v. 5, art. 2).

1863 ANON. Recent exploration encouraged by the Smithsonian Institution. (In Amer. J. Sc. ser. 2, v. 35, p. 236–39. March, 1863).

Abstracted from the Annual Report of the Institution for 1862.

1866 RHEES, William J[ones]. . . . Catalogue of publications of societies and of periodical works belonging to the Smithsonian Institution, Jan. 1866, deposited in the Library of Congress. Wash. 1866. 591 p. (In its Misc. Coll. v. 9).

————. List of works published Jan., 1866. Wash 1866. 11 p. (In its Misc. Coll. v. 7, art. 12). Pub. no. 203.

1879 ————. . . . The Smithsonian Institution: Documents relative to its origin and history; edited by William J. Rhees. Wash., Smithsonian Institution, 1879. 14+1013 p. (In Smith. Inst. Misc. Coll. v. 17, art. 1). Pub. no. 328.

————. . . . The Smithsonian Institution: Journals of the Board of Regents, Reports of Committees, Statistics, etc., edited by William J. Rhees. Wash., Smithsonian Institution, 1879. 7+844 p. (In Smith. Inst. Misc. Coll. v. 18, art. 1). Pub. no. 329.

1880 ————. James Smithson and his bequest. Wash., Smithsonian Institution, 1880 [8]+68 p. pl. port. (In Smith. Inst. Misc. Coll. v. 21, art. 1). Pub. no. 330.

See also "Scientific character and scientific writings of J. S." (In Smith. Inst. Misc. Coll. v. 21, art. 2. 159 p.). Pub. no. 327.

1881 SMITHSONIAN INSTITUTION. Memorial of Joseph Henry. Wash., Smithsonian Institution, 1881. 4+528 p. port. (In Smith. Inst. Misc. Coll. v. 21, art. 3). Pub. no. 356.

1882 BOEHMER, George H. History of the Smithsonian exchanges . . . Wash., Smithsonian Institution, 1882. 7+162 p.

From Smith. Inst. Ann. Rept. for 1881. p. 703–811.

1882 RHEES, William J[ones]. . . . Catalogue of publications of the Smithsonian Institution, (1846–1882), with an alphabetical index of articles in the Smithsonian Contributions to Knowledge, Miscellaneous Collections, Annual Reports, Bulletins and Proceedings of the United States National Museum, and Report of the Bureau of Ethnology. Wash., Smith. Inst., 1882. 14+342 p. (In Smith. Inst. Misc. Coll. v. 27, art. 4). Pub. no. 478.

1889 ————. Catalogue of the publications of the Smithsonian Institution. Wash., Smith. Inst., 1889. (In Smith. Inst. Ann. Rept. for 1886. pt. 1, p. 485–878).

1895 GOODE, George Brown. An account of the Smithsonian Institution: its origin, history, objects and achievements. Washington. For distribution at the Atlanta Exposition, 1895. 38 p. pl. port.

See also The Chautauquan. v. 5 p. 275–79.

1896 BOLTON, Henry Carrington. The Smithsonian Institution: its origin, growth and activities. (In Popular Sc. Monthly. v. 48, p. 289–303, 449–64. 1896).

1897 GOODE, George Brown, ed. The Smithsonian Institution: the history of its first half-century; edited by George Brown Goode. City of Washington, 1897. [11]+856 p. pl. port. plan. 4°. (Pub. no. 1086).

A collection of essays on the various phases and aspects of the Institution's work from its foundation in 1846 to the close of 1896.

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ch. 1 James Smithson, by Samuel Pierpont Langley. p. 1–24.
2 The founding of the Institution, 1835–1846, by George Brown Goode. p. 25–58.
3 The Establishment and the Board of Regents, by G. B. Goode. p. 59–114.
4 The three Secretaries, by G. B. Goode. p. 115–234.
5 The benefactors, by S. P. Langley. p. 235–46.
6 The Smithsonian Building and grounds, by G. B. Goode. p. 247–64.
7 The Smithsonian Library, by Cyrus Adler. p. 265–302.
8 The United States National Museum, by Frederick William True. p. 303–66.
9 Bureau of American Ethnology, by W. J. McGee. p. 367–96.
10 The International Exchange system, by William Crawford Winlock. p. 397–418.

11 The Astrophysical Laboratory, by S. P. Langley. p. 419–42.
12 National Zoological Park, by Frank Baker. p. 443–58.
13 Exploration work of the Smithsonian Institution, by F. W. True. p. 459–80.
14 Smithsonian Publications, by Cyrus Adler. p. 481–500.
15 Biographical sketch of George Brown Goode, by D. S. Jordan. p. 501–15.

Appreciations of the Work of the Smithsonian Institution

1. Physics, by T. C. Mendenhall. p. 519–60.
2. Mathematics, by R. S. Woodward. p. 561–70.
3. Astronomy, by E. S. Holden. p. 571–610.
4. Chemistry, by Marcus Benjamin. p. 611–30.
5. Geology and mineralogy, by W. N. Rice. p. 631–46 .
6. Meteorology, by Marcus Benjamin. p. 647–78.
7. Palaeontology, by E. D. Cope. p. 679–96.
8. Botany, by W. G. Farlow. p. 697–710.
9. Zoology, by T N. Gill. p. 711–44.
10. Anthropology, by J. W. Fewkes. p. 745–72.
11. Geography, by G. G. Hubbard. p. 773–84.
12. Bibliography, by H. C. Bolton. p. 785–804.
13. The cooperation of the Smithsonian Institution and other institutions of learning, by D. C. Gilman. p. 805–14.
14. The influence of the Smithsonian Institution upon the development of libraries, the organization and work of societies, and the publication of scientific literature in the United States, by J. S. Billings. p. 815–22.
15. Relation between the Smithsonian Institution and the Library of Congress, by A. R. Spofford. p. 823–30.
16. Principal events in the history of the Institution, by W. J. Rhees. p. 833–41.

Index. p. 843–56.

1901 RHEES, William Jones. The Smithsonian Institution: documents relative to its origin and history, 1835–1899. Washington, The Smithsonian Institution, 1901. 2 v. (In its Misc. Coll. v. 42 & v. 43).

v. 1, 1835–1887, 53 + p. 1–1044.
v. 2, 1887–1899, 16 + p. 1045–1983.

1902 GEARE, Randolph I[ltyd]. A list of the publications of the United States National Museum (1875–1900), including the Annual Reports, Proceedings, Bulletins, Special Bulletins and Circulars, with index to titles. Wash., Gov't print. office, 1902. 7 + 168 p. (In U. S. Nat. Mus. Bull. no. 51).

List of publications, p. 1–130. Index, p. 131–68.
Supplement no. 1. Wash. 1906. 40 p.
Supplement no. 2, 1906–12. Wash. 1914. 41 + 7 p.

1903 RHEES, William Jones. List of the publications of the Smithsonian Institution: 1846–1903. Wash. 1903. 99 p. (In Smith. Inst. Misc. Coll. v. 44).

Pt. 1, Complete list; Pt. 2, Available for distribution.
See Rhees' "Catalogue . . ." above under 1882.

1905 RATHBUN, Richard. The United States National Museum: an account of the buildings occupied by the national collections. Wash. 1905. (In U. S. Nat. Mus. Ann. Rept. for 1903. p. 177–309, 29 pl.).

1915 DALL, William Healey. Spencer Fullerton Baird: a biography, including selections from his correspondence with Audubon, Agassiz, Dana, and others. Phila. & Lond., Lippincott, 1915. 16 + 462 p. illus. pl. port.

The greater portion of the book deals with Baird's work with the Smithsonian first as assistant secretary and subsequently as secretary.

1917 BENJAMIN, Marcus. Memories of the Smithsonian. (In Scientific Monthly. v. 4, no. 5, p. 461–72, port. May, 1917).
CLARK, A[lonzo] Howard. Administration and activities of the Smithsonian Institution. Wash. 1917. (In Smith. Inst. Ann. Rept. for 1916. p. 137–55, 22 pl. port.).

1926 CLARK, Austin H[obart]. The Smithsonian Institution, its function and its future. (In Science n. s. v. 63, p. 147–57. Feb. 5, 1926).

Delivered before Amer. Assoc. Adv. Sc. Jan. 1, 1926.

SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE (S. C.)

Dates of Publication

The articles are separately indexed and paged, with separate publication dates, which will be found under the respective entries in the "PAPERS ON NATURAL HISTORY." Below are given the dates of the title-pages of the completed volumes.

v. 1, 1848, art. 1 , 39 + 306 p. 207 illus. 48 pl.
v. 2, 1851, art. 1–9, appx. (1–4), 15 + 60 + [33] + 15 + 64 + 13 + 28 + 19 + 48 + 188 + 32 + 10 + 9 + 26 p. 24 pl. (560 p.)
v. 3, 1852, art, 1–7, appx. (1–2), 15 + 29 + [60] + 80 + 152 + 146 + 14 + 20 + 9 + 34 p. 35 pl. (559 p.)
v. 4, 1852, art. 1 , [20] + 338 p.
v. 5, 1853, art. 1–6, 14 + 68 + 20 + [52] + 258 + 119 p. 45 pl. (531 p.)
v. 6, 1854, art. 1–7, appx., 14 + 24 + [8 + 8 + 67 + 198] + 126 + 35 p. 53 pl. (480 p.)

v. 7, 1855, art. 1–5, appx., 14 + [12 + 16] + 95 + 68 + 35 p. 73 pl. map. (240 p.)
v. 8, 1856, art. 1–5, appx. (1–2), 14 + 168 + 52 + 16 + [138 + 122] + 34 p. 9 pl. 27 illus. (444 p.)
v. 9, 1857, art. 1–5, appx. (1–2), 14 + 58 + [8] + 155 + 33 + [68 + 64] + 71 p. 22 pl. (471 p.)
v. 10, 1858, art. 1–4, [13] + 142 + [72 + 23 + 71 + 136 p.] 15 pl. map. (457 p.)
v. 11, 1859, art. 1–8, 14 + 8 + 132 + [22 + 22 + 120 + 64 + 28] + 92 p. 23 pl. (502 p.)
v. 12, 1860, art. 1–6, [13 + 56 + 27 + 186 + 94 + 154 p.] 3 pl. 12 illus. (530 p.)
v. 13, 1863, art. 1–9, 14 + [90 + 162] + 32 + [28 + 16 + 78 + 88] + 50 p. 4 pl. 3 maps. (558 p.)
v. 14, 1865, art. 1–6, 14 + [72 + 43 + 58 + 155 + 138 p.] 25 pl. (480 p.)
v. 15, 1867, art. 1–5, 14 + [117] + 32 + [168 + 284 p.] 17 pl. 43 illus. (615 p.)

SMITHSONIAN MISCELLANEOUS COLLECTIONS (M. C.)

Dates of Publication

The various articles in these volumes were published separately, and combined to form the M. C., with the title-page dates as noted below. The exact dates of publication for the separate articles are given with the individual entries under "PAPERS ON NATURAL HISTORY."

v. 1, 1862, art. 1– 3, (1860, 1856, 1859), [7] + 20 + [634] p. (731 p.)
v. 2, 1862, art. 1–10, (1852–1860), [7] + 216 + 39 + 76 + [22] + 172 + [49] + 40 + 5 + [30] + 33 p. (689 p.)
v. 3, 1862, art. 1– 4, (1858, 1860, 1861–62, 1859) [7 + 115 + 76 + 25 + 278] + 264 p. (765 p.)
v. 4, 1862, art. 1– 2, (1861, 1862) [7] + [20 + 347 + 27 + 358] p. 30 illus. (759 p.)
v. 5, 1864, art. 1– 3, (1863, 1862, 1862) [7] + 658 + 52 + 56 p. (773 p.)
v. 6, 1867, art. 1– 4, (1862, 1864, 1863, 1866) [7 + 245 + 371 + 81 + 179 p. 7 pl. 3 illus. (883 p.)
v. 7, 1867, art. 1–12, (1863 – 1867), [7 + 23 + 85] + [9 + 161 + 8 + 120 + 62 + 91 + 45] + 34 + 42 + [55] + 60 + 54 + 11 p. 676 illus. (867 p.)

Annual Reports (R)

Dates of Publication

v. 1, for 1846, pub. 1847, 38 p.
v. 2, 1847, 1848, 208 p.

v. 3,	1848,	1849, 64 p.
v. 4,	1849,	1850, 272 p.
v. 5,	1850,	1851, 326 p.
v. 6,	1851,	1852, 104 p.
v. 7,	1852,	1853, 96 p.
v. 8,	1853,	1854, 310 p.
v. 9,	1854,	1855, 464 p., 4 illus.
v. 10,	1855,	1856, 440 p., 79 illus.
v. 11,	1856,	1857, 468 p., 69 illus.
v. 12,	1857,	1858, 438 p., 100 illus.
v. 13,	1858,	1859, 448 p., 48 illus.
v. 14,	1859,	1860, 450 p., 55 illus.
v. 15,	1860,	1861, 448 p., 73 illus.
v. 16,	1861,	1862, 464 p., 25 illus.
v. 17,	1862,	1863, 446 p., 94 illus.
v. 18,	1863,	1864, 420 p., 56 illus.
v. 19,	1864,	1865, 450 p., 50 illus.
v. 20,	1865,	1866, 496 p., 137 illus.

Papers on Natural History

1847 OWEN, D. D. Report on the Baltimore County quarries. R. v. 2, p. 25–33. Submitted Mar. 11.

————. Report on the sandstones of the Potomac. R. v. 2, p. 36–40.

Both this and the preceding report were concerned with a survey of the materials to be used in the construction of the Smithsonian buildings.

SQUIER, E. G., and DAVIS, E. H. Ancient monuments of the Mississippi Valley: comprising the results of extensive original surveys and explorations. S. C. v. 1, art. 1, pref. p. 17–39 + 306 p. 48 pl. 207 illus. plans. Acc. in June. (Pub. no. 1)

ch. 16—Metals, fossils, minerals, etc., of the mounds, p. 278–88.
ch. 17—Crania from the mounds, p. 288–93, pl. 47–48.
Pub. in 1848.
Volume rev. in North. Amer. Rev. v. 68, p. 466–96. April, 1849.
Also rev. in Amer. J. Sc. ser. 2, v. 11, p. 305–24. May, 1851.

GRAY, Asa. Detailed account of the botanical explorations in New Mexico and California. R. v. 4, p. 16, 23–4.

AGASSIZ, Louis. Relative to the formation of a Museum . . . R. v. 4, p. 20, 24–6.

SQUIER, E. G. Aboriginal monuments of the state of New York, comprising the results of original surveys and explorations; with an illustrative appendix. S. C. v. 2, art. 9, 188 p. Pub. in 1850. 14 pl. 72 illus. Acc. Oct. 20. (Pub. no. 15)

GIBBES, R. W. A memoir on Mosasaurus and the three allied new genera, Holcodus, Conosaurus, and Amphorosteus. S. C. v. 2, art. 5, 13 p. 3 pl. [28 fig.] Rec. Nov. 15. (Pub. no. 14)

Note, p. 13, dated Nov. 1, 1850. Pub. Nov. 1850.

Rd before Amer. Assoc. Adv. Sc. (1848), Aug. 14, 1849.

In its Proc. v. 2, p. 77, (pub. 1850).

1849 ELLET, Charles, Jr. Contributions to the physical geography of the United States; part 1: On the physical geography of the Mississippi Valley, with suggestions for the improvement of the navigation of the Ohio and other rivers. S. C. v. 2, art. 4, 64 p. 1 pl. Acc. in Dec. (Pub. no. 13).

Rec. Sept. 17, 1849, and Pub. in 1850.

1850 GRAY, Asa. Plantae Wrightianae Texano—Neo-Mexicanae; [An account of a collection of plants made by Charles WRIGHT in an expedition from Texas to El Paso, New Mexico, in the summer and autumn of 1849 . . .], part. 1. S. C. v. 3, art. 5, 146 p. 10 pl. [127 fig.] Acc. in Mar. (Pub. no. 22).

Preface written May, 1850. Pub. Mar. 1852. 418 species enumerated. Index, p. 131–42.

Pt. 2, acc. in Oct. 1852 (q.v. below).

See also U. S. & Mexican Boundary Surv. (1848).

AGASSIZ, Louis. The classification of insects from embryological data. S. C. v. 2, art. 6, 28 p. illus. 1 pl. [23 fig.] Rec. Mar. 6. (Pub. no. 16).

Rd before Amer. Assoc. Adv. Sc. (1848), Aug. 1849.

Not noted in its Proc.

WHITTLESEY, Charles. Descriptions of ancient works in Ohio. S. C. v. 3, art. 7, 20 p. 7 pl. Acc. in May. (Pub. no. 37).

Pub. in 1852. Preface written April 3, 1850.

Carried on during the operations of the Ohio Geol. Surv. (1837), q. v.

TORREY, John. Plantae Frémontianae; or, Descriptions of plants collected by Col. J. C. Frémont in California. S. C. v. 6, art. 1, 24 p. 10 pl. [89 fig.] Acc. in Sept. (Pub. no. 46.)

Pub. April, 1853. Includes the species collected on Frémont's 4 Expeditions (3 of which were Federal).

See also Frémont's Exped. to Missouri River & Rocky Mountains (1842); Frémont's Exped. to Oregon & California (1843) & Frémont's Exped. to California (1845).

Rev. in Amer. J. Sc. ser. 2, v. 16, p. 424–25. Nov. 1853.

See also Torrey's paper rd before Amer. Assoc. Adv. Sc. (1848), Aug. 22, 1850. In its Proc. v. 4, p. 190–93. Pub. 1851.

————. On the Darlingtonia Californica, a new pitcher-plant from northern California. S. C. v. 6, art. 3, [8 p.] 1 pl. [9 fig.] Acc. in Sept. (Pub. no. 61.)

See also Wilkes Explor Exped. (1838), v. 16.

Collected by W. D. Brackenridge.

Pub. in April, 1853. Rev. in Amer. J. Sc. ser. 2, v. 16, p. 425. Nov. 1853.

————. Observations on the Batis maritima of Linnaeus. S. C. v. 6, art. 2, 8p. 1 pl. [21 fig.] Acc. in Sept. (Pub. no. 60). Pub. April, 1853.

GIRARD, Charles. Contributions to the natural history of the fresh water fishes of North America; [part] 1: A monograph of the Cottoids. S. C. v. 3, art. 3, 80 p. 3 pl. [71 fig.] Acc. in Dec. (Pub. no. 30.)

Pub. Dec. 1851. Bibliography, p. 72–4.

ch. 1 On the fresh water cottoids in general, p. [5]–13.
2 Anatomical observations, p. 14–32.
3 On the genus Cottus, Artedi, p. 33–60.
4 On the genus Cottopsis, G., p. 61–3.
5 On the genus Triglopsis, G., p. 64–7.

BAILEY, J. W. Microscopical observations made in South Carolina, Georgia and Florida. S. C. v. 2, art. 8, 48 p. 3 pl. [83 fig.] tab. Acc. Dec. 1. (Pub. no. 23.)

p. 45–6, appx.: Microscopical forms found near Salem, Mass., by T[imothy] COLE.

Pub. Jan. 1851.

————. Microscopical examination of the soundings, made by the U. S. Coast Survey off the Atlantic Coast of the United States. S. C. v. 2, art. 3, 15 p. 1 pl. [68 fig.] Rec. Dec. 24. (Pub. no. 20.)

Pub. Jan. 1851. Sent to Coast Surv. Mar. 8, 1848. Originally pres. to Amer. Assoc. Geo. & Nat. (1840), in 1846.

BAIRD, S. F. Report of the Assistant Secretary in charge of the natural history department . . . for the year 1850. R. v. 5, p. 41–50.

1851 CULBERTSON, Thomas. Journal of an expedition to the Mauvaises Terres and the Upper Missouri in 1850 . . . R. v. 5, p. 84–145.

From April 27 to July 6, 1850. Contains also:

PORTER, T. C. List of plants collected by Mr. Culbertson. p. 133–36.

HARRIS, Edward. List of birds and mammalia found on the Missouri River from Fort Leavenworth to Fort Union, at the mouth of the Yellowstone River . . . p. 136–38.

CULBERTSON, Thomas. A tabular view of the Indian tribes of the Upper Missouri in 1850. p. 138–39.

*HARVEY, W. H. Nereis Boreali-Americana; or, Contributions to a history of the marine algae of North America; part 1: Melanospermeae. S. C. v. 3, art. 4, 150 p. 12 pl. [32 fig.] Acc. in July. (Pub. no. 32.)

Pt. 2 acc. July, 1852 (q. v. below).
Pt. 3 acc. Sept. 1857 (q. v. below).
Pt. 1, Preface written Aug. 6, 1851. Pub. Jan. 1852. Rev. in Amer. J. Sc. ser. 2, v. 14, p. 1–8. July, 1852, by Asa Gray.

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3. Laminariaceae, p. 80–99.
4. Dictyotaceae, p. 99–121.
5. Chordariaceae, p. 121–32.
6. Ectocarpaceae, p. 133–44.

DAVIS, C. H. The law of deposit of the flood tide: its dynamical action and office . . . S. C. v. 3, art. 6, 13 p. Acc. in Dec. (Pub. no. 33). Pub. in 1852.

1851 LEIDY, Joseph. A flora and fauna within living animals. S. C. v. 5, art. 2, 68 p. 10 pl. [140 fig.] Acc. in Dec. (Pub. no. 44). Pub. April 1853.

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2: A fauna within animals: being descriptions of Nematoid Entozoa found associated with Entophyta, and of others allied to them, p. 41–9.
3: Upon Pseudo-Entophyta, etc., p. 50–4.

BAIRD, S. F. Report of the Assistant Secretary in charge of the Museum. R. v. 6, p. 39–65.
Appx. A: An account of the natural history explorations in the U. S. during 1851. p. 52–6.

1852. WYMAN, Jeffries. Anatomy of the nervous system of Rana pipiens. S. C. v. 5, art. 4, 52 p. 2 pl. [29 fig] Acc. in May. (Pub. no. 45.) Pub. Mar. 1853. Rev. in Amer. J. Sc. ser. 2, v. 16, p. 251–60. Sept. 1853.

*HARVEY, W. H. Nereis Boreali-Americana; or, Contributions to a history of the marine algae of North America; [part] 2: Rhodospermeae. S. C. v. 5, art. 5, 258 p. 24 col. pl. [67 fig.] Acc. in July. (Pub. no. 43.)
Pub. Mar. 1853. Preface written Nov. 24, 1852.
Pt. 1, acc. July, 1851 (above, q. v.).
Pt. 3, acc. Sept. 1857 (below, q. v.).
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LEIDY, Joseph. Memoir on the extinct species of American ox. S. C. v. 5, art. 3, 20 p. 5 pl. [15 fig.] Acc. in Sept. (Pub. no. 45). Pub. Dec. 1852.

GRAY, Asa. Plantae Wrightianae Texano-Neo-Mexicanae; [An account of a collection of plants made by Charles WRIGHT in western Texas, New Mexico and Sonora in the years 1851 and 1852; part 2. S. C. v. 5, art. 6, 119 p. 4 pl. [39 fig.] Acc. in Oct. (Pub. no. 42.)

Pub. Feb. 1853. Pt. 1 acc. Mr. 1850 (q. v. above).

See also U S. & Mexican Boundary Surv. (1848).

BAIRD, S. F., and GIRARD, Charles. Catalogue of North American reptiles in the Museum of the Smithsonian Institution: part 1—Serpents. M. C. v. 2, art. 5, 16 + 172 p. Acc. in Nov. (Pub. no. 49.)

Pub. Jan. 1853. Appx. C.: Species collected by John H. Clark and Arthur Schott, on the U. S. & Mexican Boundary Survey, under Major Wm. H. Emory, and received too late for insertion in their proper places. p. 156–61.

See also U. S. & Mexican Boundary Surv. (1848).

LEIDY, Joseph. The ancient fauna of Nebraska; or, A description of remains of extinct Mammalia and Chelonia from the Mauvaises Terres of Nebraska. S. C. v. 6, art. 7, 126 p. illus. 24 pl. [150 fig.] map. Acc. in Dec. (Pub. no. 58.)

Pub. June, 1853. Abstr. in R. v. 6, p. 63–5. (appx. E.)

CONTENTS:

Introduction, p. 1–18.

Mammalia, p. 19–99.

ch. 1 Descriptions of Ungulata paridigitata, p. 19–66.
2 Descriptions of Ungulata imparidigitata, p. 67–94.
3 Carnivora, p. 95–9.

Chelonia, p. [101]–11.

GIRARD, Charles. Bibliographia Historico-Naturalis A. D. 1851 . . . Wash. 1852. 68 p. Pub. in Dec. (Pub. no. 48.)

The earliest annual scientific Bibliography, in the strictest sense, published in the U. S.

In somewhat altered form it was pub. in the Amer. J. Sc. ser. 2, v. 13, appx. 19 p. May, 1852.

BAIRD, S. F. Report of the Assistant Secretary in charge of the Museum . . . R. v. 7, p. 45–73.

BAIRD, S. F., and others. Directions for collecting, preserving and transporting specimens of natural history prepared for the use of the Smithsonian Institution . . . M. C. v. 2, art. 7, 40 p. illus. (Pub. no. 34.)
3d ed. pub. Mar. 1859.

1853 STIMPSON, William. Synopsis of the marine Invertebrata of Grand Manan; or, The region about the mouth of the Bay of Fundy, New Brunswick. S. C. v. 6, art. 5, [67 p.] 3 pl. [37 fig.] Acc. in Jan. (Pub. no. 50.)
Pub. March, 1853.

BAILEY, J. W. Notes on new species and localities of microscopical organisms. S. C. v. 7, art. 3, 16 p. 1 pl. Acc. in Nov. (Pub. no. 63.)

LAPHAM, I. A. The antiquities of Wisconsin as surveyed and described . . . on behalf of the American Antiquarian Society. S. C. v. 7, art. 4, 95 p. 55 pl. 61 illus. maps. Acc. in Dec. Pub. in May & June, 1855.

LEIDY, Joseph. A memoir on the extinct sloth tribe of North America. S. C. v. 7, art. 5, 68 p. 16 pl. [139 fig.] Acc. in Dec. (Pub. no. 72). Pub. June, 1855.

BAIRD, S. F. Report of the Assistant Secretary in charge of the Museum . . . R. v. 8, p. 36–59.

1854 MARSH, G. P. The camel. R. v. 9, p. 98–122.

FROEBEL, Julius. Remarks contributing to the physical geography of the North American continent. R. v. 9, p. 272–81. Written Dec. 8.

STRANG, J. J. Some remarks on the natural history of Beaver Islands, Michigan. R. v. 9, p. 282–88.

EOFF, John. On the habits of the black bass of the Ohio (Grystes fasciatus). R. v. 9, p. 289–90.

HEAD, J. F. Some remarks on the natural history of the country about Fort Ripley, Minnesota. R. v. 9, p. 291–93.

PARVIN, J. B. On the habits of the Gopher of Illinois (Geomys bursarius). R. v. 9, p. 293–94.

MANN, Charles. On the habits of a species of Salamander (Amblystoma pacum), Bd. R. v. 9, p. 294–95.

HOY, P. R. On the Amblystoma luridum, a salamander inhabiting Wisconsin. R. v. 9, p. 295.

CARLETON, James Henry. Diary of an excursion to the ruins of Aho, Quarra, and Gran Quivira, in New Mexico, 1853. R. v. 9, p. 296–316.

BAIRD, S. F. Report on the fishes observed on the coasts of New Jersey and Long Island during the summer of 1854. R. v. 9, p. 317–52, *337.

JACKSON, C. T. Catalogue of rocks, minerals, and ores collected during the years 1847 and 1848 on the Geological Survey of the Mineral Lands (U. S.) in Michigan by . . . and deposited in the Smithsonian Institution. R. v. 9, p. *338–*352, 353–67.
See also U. S. Surv. Mineral Lands Michigan by Jackson (1847).

LOCKE, John. Catalogue of rocks, minerals, ores and fossils collected by . . . R. v. 9, p. 367–83.

See also U. S. Surv. Mineral Lands Michigan by Jackson (1847).

FOSTER, J. W. Catalogue of rocks, minerals, etc., collected by . . . R. v. 9, p. 384–87.

See also Foster & Whitney's Surv. Lake Superior Land District (1849).

ANON. Catalogue of the rocks, minerals, etc., collected in the district between Portage and Montreal River, during 1847 and 1848. R. v. 9, p. 387–92.

OWEN, D D. Catalogue of geological specimens collected by . . . and deposited in the Smithsonian Institution, Dec. 1851. R. v. 9, p. 393–96.

See also Owen's Surv. Wisconsin, Iowa & Minnesota (1848).

BAIRD, S. F. Report of the Assistant Secretary in charge of the Museum . . . R. v. 9, p. 79–97.

Report on American explorations in the years 1853 and 1854, during which numerous expeditions were sent out.

1855 HAVEN, S. F. Archaeology of the United States; or, Sketches, historical and bibliographical of the progress of information and opinion respecting vestiges of antiquity in the United States. S. C. v. 8, art. 2, 168 p. Acc. in Jan. (Pub. no. 71.)

Pub. July, 1856. Rev. in North Amer. Rev. ser. 2, v. 35, p. 205–23. July, 1857.

ch. 1. General opinions respecting the origin of population in the New World, p. 3–16.
2. Progress of investigation in the United States. p. 17–140.
3. Conclusion. p. 141–59.

*HARVEY, W. H. Substance of a course of lectures on marine algae. R. v. 10, p. 87–130.

MORRIS, J. G. Natural history as applied to farming and gardening: a lecture. R. v. 10, p. 131–35.

————. Insect instincts and transformations: a lecture R. v. 10, p. 137–41.

BAIRD, S. F. Report of the Assistant Secretary . . . R. v. 10, p. 36–61.

1856 HITCHCOCK, Edward. Illustrations of surface geology. S. C. v. 9, art. 3, 8 + 155 p. 12 pl. 59 fig. 5 maps. sect. tab. Acc. in Jan. (Pub. no. 90.)

Pub. April, 1857. See also MERRILL, (1) p. 462–63. (See Annot. Bib.). Also in his First 100 yrs. Amer. Geol. 1924, p. 343–44. 2d ed. N. Y., D. Appleton & co., & Amherst, Mass., J. S. & C. Adams, 1860. 1st ed. rev. in Amer. J. Sc. ser. 2, v. 24, p. 430–33. Nov. 1857, by J. D. Dana.

CONTENTS:

Pt. 1. On surface geology, especially that of the Connecticut Valley in New England, p. 1–78.

Pt. 2. On the erosions of the earth's surface, especially by rivers, p. 79–127.

Pt. 3. Traces of ancient glaciers in Massachusetts and Vermont, p. 129–44.

BREWER, T. M. North American Oölogy; part I: Raptores and Fissirostres. S. C. v. 11, art. 2, 8+132 p. 5 pl. [74 fig.] Acc. in Feb. (Pub. no. 89.)

Written April, 1857 (Preface). Pub. in June, 1857.

"Being an account of the geographical distribution of the birds of North America during their breeding season, with figures and descriptions of their eggs."

Raptores, p. 1–81. Fissirostres, p. 82–112.

JONES, Joseph. Investigations chemical and physiological relative to certain American Vertebrata. S. C. v. 8, art. 5, [138 p.] 27 illus. Acc. in Mar. (Pub. no. 82). Pub. in July, 1856.

BAIRD, S. F. Directions for collecting, preserving and transporting specimens of natural history . . . R. v. 11, p. 235–53.

1st ed. pub. in 1852 (see BAIRD, above).

GILL, Theodore. On the fishes of New York. R. v. 11, p. 253–69. Written April 14.

*SAWKINS, James, and *WALL, G. P. Report of progress, from August 25, 1856, to February 24, 1857, of the survey of the economic geology of Trinidad. R. v. 11, p. 281–88.

BAIRD, S. F. Report of Assistant Secretary . . . R. v. 11, p. 47–68.

1857 *OSTEN-SACKEN, R. von. Catalogue of the described Diptera of North America prepared for the Smithsonian Institution. M. C. v. 3, art. 1, 20+95 p. Acc. Mar. 4. (Pub. no. 102.)

Pub. Jan. & Apr. 1858. Bibliography, pref. p. 11–8.

LE CONTE, Joseph. Lectures on coal. R. v. 12, p. 119–68, illus.

BAIRD, S. F. Report of the Assistant Secretary . . . R. v. 12, p. 38–54.

*HARVEY, W. H. Nereis-Americana; or, Contributions to the history of the marine algae of North America: part 3—Chlorospermeae. S. C. v. 10, art. 2, 140 p. 14 col. pl. [44 fig.] Acc. in Sept. (Pub. no. 95.)

Preface written Dec. 1, 1857. Pub. Mar. 1858.

Pt. 1, acc. in July, 1851 (q. v.)

Pt. 2, acc. in July, 1852 (q. v.)

Pt. 3, rev. in Amer. J. Sc. ser. 2, v. 27, p. 142–46. Jan. 1859.

CONTENTS:

Order 1. Siphoneae, p. 9–33.
2. Dasycladeae, p. 33–40.
3. Valoniaceae, p. 41–51.
4. Ulvaceae, p. 51–61.
5. Batrachospermeae, p. 61–7.
6. Confervaceae, p. 67–92.

7. Zygnemaceae, p. 92–3.
8. Hydrodictyeae, p. 94–5.
9. Oscillatoriaceae, p. 96–109.
10. Nostochineae, p. 110–15.
13. Palmellaceae, p. 116–19.

Supp. to Pt. 1–3, p. 121–31.

1858 BOWEN, T. J. . . . Grammar and dictionary of the Yoruba language, with an introductory description of the country and people of Yoruba. S. C. v. 10, art. 4, 23 + 71 + 136 p. map. Acc. in May. (Pub. no. 98.)

Pref. 21 p. gives descriptions of people and the country.

[BAIRD, S. F.] Instructions in reference to collecting nests and eggs of North American birds. R. v. 13, p. 153–60.

Also in M. C. v. 2, art. 9, 9 p. Pub. Jan. 1860.

LE CONTE, J. L., *LOEW, H[ermann], *OSTEN-SACKEN, R. von, and CLEMENS, Brackenridge. Instructions for collecting Coleoptera, Diptera and Lepidoptera. R. v. 13, p. 160–200.

Coleoptera by LE CONTE, p. 160–67; Lepidoptera, by CLEMENS, p. 173–200; Diptera by LOEW & OSTEN-SACKEN, p. 167–73.

TAYLOR, A. S. An account of the grasshoppers and locusts of America . . . R. v. 13, p. 200–14.

COOPER, J. G. On the distribution of the forests and trees of North America, with notes on its physical geography. R. v. 13, p. 246–80.

Errata and corrections in R. v. 15, p. 442, 1860.

*WILLIS, J. R. List of birds of Nova Scotia; compiled from notes by Lt. Blakiston and Lt. Bland made in 1852–1855. R. v. 13, p. 280–86.

*BLAND, Lt. List of birds of Bermuda. R. v. 13, p. 286–89.

BAIRD, S. F. Report of the Assistant Secretary . . . R. v. 13, p. 44–62. Written Dec. 31.

1859 MORRIS, J G. Catalogue of the described Lepidoptera of North America, prepared for the Smithsonian Institution. M. C. v. 3, art. 2, 8 + 68 p. Acc. Oct. 1. (Pub. no. 118.)

Pub May, 1860, Preface dated Mar. 1860. Bibliography, pref. p. 5–7.

LE CONTE, J. L. The Coleoptera of Kansas and eastern New Mexico. S. C. v. 11, art. 6, 6 + 58 p. 2 pl. [33 fig.] map. Acc. in Oct. (Pub. no. 136.)

Pub. Dec. 1859. See also Pacific RR. Surv. (1853).

Williamson's Exped., v. 5, & Pope's Exped., v. 2.

BAIRD, S. F. Catalogue of North American birds, chiefly in the museum of the Smithsonian Institution. M. C. v. 2, art. 4, 22 p. (Pub. no. 108). Pub. 1859. (Oct. 1858.)

Repr. with some changes from that in v. 9 of Pacific RR. Surv. (1853), q. v.

*Carpenter, P. P. Lectures on the shells of the Gulf of California. R. v. 14, p. 195–219, illus.

Baird, S. F. Report of the Assistant Secretary . . . R. v. 14, p. 54–78. Written Dec. 31.

1860 Henry, Joseph. Circular to officers of the Hudson's Bay Company. M. C. v. 2, art. 8, 5 p. (Pub. no. 137.)
Written April 20, 1860.

————. Instructions in reference to collecting nests and eggs of North American birds. M. C. v. 2 art. 9, p. 1–9. (Pub. no. 139.)
Written Jan. 1, 1860 & pub. Jan. 1860.

————. Circular in reference to the history of North American grasshoppers. M. C. v. 2, art. 9, 4 p. (Pub. no. 139.)

————. Circular in reference to collecting North American shells. M. C. v. 2, art. 9, 4 p. (Pub. no. 139). Pub. in Jan. 1860.

*Newton, Alfred. Suggestions for forming collections of birds' eggs. M. C. v. 2, art. 9, p. 10–22, illus. (Pub. no. 139). Pub. in Jan. 1860.

Lea, Isaac, *Carpenter, P. P., Stimpson, William, and Prime, Temple. Checklists of the shells of North America . . . prepared for the Smithsonian Institution. M. C. v. 2, art. 6, 5 + [44 p.] (Pub. no. 128.)

Pub. June, 1860. Contains:

no. 1. *Carpenter, P. P. West coast: Oregonian and Californian province. 4 p. (a)
2. ————. West coast: Mexican and Panamic province. 13 p. (b)
3. Stimpson, William. East coast: Arctic Seas to Georgia. 6 p. (c)
4. Not published.
5 & 6. Binney, W. G. Terrestrial and fluviatile Gasteropoda. 13 p. (e & f)
7. Prime, Temple. Cyclades. 2 p. (g)
8. Lea, Isaac. Unionidae. 6 p. (h)

Mitchell, S. W. Researches upon the venom of the rattlesnake, with an investigation of the anatomy and physiology of the organs concerned. S. C. v. 12, art. 6, [9 + 145 p.] 12 illus. Acc. in July. (Pub. no. 135.)
Pub. in 1861. Bibliography, Appx. B, p. [127]–39. Contains also as Appx. A.:

Cope, E. D. An enumeration of the genera and species of rattlesnakes with synonymy and references. p. [119]–26.
Digest of Mitchell's Paper in R. v. 15, p. 23–6, 1860.

Le Conte, J. L. Classification of the Coleoptera of North America prepared for the Smithsonian Institution; part 1. M. C. v. 3, art. 3, 25 + 286 p. illus. Acc. in Oct. (Pub. no. 136.)
p. 1–208 pub. May, 1861; p. 209–78 pub. in Mar. 1862.

Morris, J. G. Synopsis of the described Lepidoptera of North America; part 1: Diurnal and crepuscular Lepidoptera, compiled for the

Smithsonian Institution. M. C. v. 4, art. 2, 27 + 358 p. 30 illus. Acc. in Oct. (Pub. no. 133). Pub. in Feb. 1862.

*HAGEN, Hermann. Synopsis of the Neuroptera of North America with a list of the South American species, prepared for the Smithsonian Institution. M. C. v. 4, art. 1, 20 + 347 p. Acc. in Nov. (Pub. no 134.)
Pub. July, 1861. Bibliography, pref. p. 11–7.

*CARPENTER, P. P. Lectures on Mollusca; or, "Shell-fish" and their allies. R. v. 15, p. 151–283.

*NEWTON, Alfred. Suggestions for saving parts of the skeleton of birds. R. v. 15, p. 417–21, illus.

VOLLUM, E. P. Notes on the wingless grasshopper of Shasta and Fall River Valleys, California, and a plan for keeping them out of fields. R. v. 15, p. 422–25, illus.

WURDEMAN, Gustavus. Letter relative to the obtaining of specimens of flamingoes and other birds from South Florida. R. v. 15, p. 426–30.
Written April 27, 1857.

GESNER, W[illia]m. On the habits of the pouched rat, or salamander (Geomys Pineti), of Georgia. R. v. 15, p. 431–33.

BARNARD, Vincent. A catalogue of birds of Chester County, Pa., with their times of arrival in spring, from observations annually for ten successive years. R. v. 15, p. 434–38.

COOPER, J. G. On the forests and trees of Florida and the Mexican Boundary. R. v. 15, p. 439–42.

BAIRD, S. F. Report of the Assistant Secretary . . . R. v. 15, p. 55–85. Written Dec. 31.

1861 *LOEW, H[ermann], and *OSTEN-SACKEN, R. von. Monographs of the Diptera of North America, prepared for the Smithsonian Institution, by H. Loew; edited by R. von Osten-Sacken: part 1. M. C. v. 6, art. 1, 24 + 221 p. 2 pl. [42 fig.] Acc. in July. (Pub. no. 141.)
Pub. April, 1862. Preface written Oct. 3, 1860.

————. Same; part 2. M. C. v. 6, art. 2, 11 + 360 p. 5 pl. [44 fig.] Acc. in July. (Pub. no. 171.)
Pub. Jan. 1864.

COUES, Elliott, and PRENTISS, Webster. List of birds ascertained to inhabit the District of Columbia, with the times of arrival and departure of such as are non-residents and brief notices of habits, etc. R. v. 16, p. 399–421.
226 species enumerated.

BAIRD, S. F. . . . Report of the Assistant Secretary . . . R. v. 16, p. 49–68. Written Dec. 31.

GRAY, Asa. Enumeration of a collection of dried plants made by L. J. Xantus at Cape San Lucas in Lower California, between August, 1859, and February, 1860, and communicated to the Smithsonian Institution.
Rd before Amer. Acad. A. & Sc. (1780), Jan. 30, 1861. In its Proc. v. 5, p. 153–73. 1861.

1862 WHITTLESEY, Charles. Ancient mining on the shores of Lake Superior. S. C. v. 13, art. 4, 3 + 29 p. illus. sect. map. Acc. in April. (Pub. no. 155.)

Written May 1, 1856. Pub. April, 1863.

WILSON, Daniel. Lectures on physical ethnology. R. v. 17, p. 240–302, illus.

Pt. 1. The American cranial type, p. 240–65.
2. Designed and undesigned sources of change in cranial forms, p. 265–91.
3. Primitive art—races, p. 291–302.

BAIRD, S. F. Report of the Assistant Secretary . . . R. v. 17, p. 46–59. Written Dec. 31.

1863 BINNEY, W. G. Bibliography of North American conchology, previous to the year 1860, prepared for the Smithsonian Institution; part 1: American authors. M. C. v. 5, art. 1, 7 + 650 p. (Pub. no. 142.)

Pub. Mar. 1863. See annotation under ANNOTATED BIBLIOGRAPHY: BINNEY, William Greene.

MITCHELL, S. W., and MOREHOUSE, G. R. Researches upon the anatomy and physiology of respiration in the Chelonia. S. C. v. 13, art. 9, [8] + 42 p. 8 illus. Acc. in Mar. (Pub. no. 159). Pub. April, 1863.

LE CONTE, J. L. New species of North American Coleoptera prepared for the Smithsonian Institution; part 1. M. C. v. 6, art, 4, 2 + 177 p. (Pub. no. 167.)

p. 1–86 pub. Mar., 1863; p. 87–163, pub. April, 1866.

GIBBS, George. Instructions for research relative to ethnology and philology of America prepared for the Smithsonian Institution. M. C. v. 7, art. 11, 51 p. (Pub. no. 160.)

Ethnology, p. 2–12, 35–9. Pub. in Mar.

LE CONTE, J. L. List of the Coleoptera of North America, prepared for the Smithsonian Institution; part 1. M. C. v. 6, art. 3, 3 + 78 p. (Pub. no. 140.)

p. 1–49, pub. Mar. 1863; p. 50–70, in Apr. 1866.

EGLESTON, T[homas]. Catalogue of minerals with their formulas, etc., prepared for the Smithsonian Institution. M. C. v. 7, art. 9, 13 + 42 p. (Pub. no. 156). Pub. June, 1863.

BAIRD, S. F. Report of the Assistant Secretary . . . R. v. 18, p. 44–63. Written Dec. 31.

PEALE, T. R. Method of preserving Lepidoptera. R. v. 18, p. [404]–6, illus.

*MORAO, Figanierre E. An account of a remarkable accumulation of bats near Charleston, Cecil Co., Md. R. v. 18, p. [407]–9.

1864 MEEK, F. B. Check-list of the invertebrate fossils of North America: Cretaceous and Jurassic. M. C. v. 7, art. 8, 2 + 40 p. (Pub. no. 177). Pub. in April, 1864.

MEEK, F. B., and HAYDEN, F. V. Palaeontology of the Upper Missouri: A report upon the collections made principally by the expeditions under

the command of Lt. G. K. Warren, U. S. T. E., in 1855 and 1856; part 1: Invertebrates. S. C. v. 14, art. 5, 9 + [146 p.] 5 pl. [55 fig.] Acc. in May. (Pub. no. 172). Pub. Feb. 1864–Mar. 1865.

See also Warren's Sioux Exped. (1855).

See also Warren's Explor. in Nebraska & Dacotah (1856).

p. 1–10, Silurian age; 11–65, Carboniferous age; 66–128, Reptilian age.

p. 1–16, pub. Feb. 1864; p. 17–24, Mar., p. 25–32, Feb.; p. 33–48, Apr., p. 49–56, 65–72, June; p. 57–64, May; p. 73–96, Sept., p. 97–112, Dec. 1864; p. 113–28, Jan. 1865; p. 129–46, Mar. 1865.

WHITTLESEY, Charles. On the freshwater glacial drift of the northwestern states. S. C. v. 15, art. 3, [4] + 32 p. illus. sect. map. Acc. in June. (Pub. no. 197.)

p. 1–16, pub. Apr. 1866 & p. 17–32, pub. May, 1866.

ALLEN, H[arrison]. Monograph of the bats of North America. M. C. v. 7, art. 1, 23 + 85 p. 68 illus. (Pub. no. 165). Pub. June, 1864.

See revision of this article in U. S. Nat. Mus. Bull no. 43. Wash. 1893. 198 p. 38 pl.

MEEK, F. B. Check-list of the invertebrate fossils of North America: Miocene. M. C. v. 7, art. 7, 2 + 32 p. (Pub. no. 183). Pub. Nov. 1864.

RAU, Charles. Artificial shell-deposits in New Jersey. R. v. 19, p. 370–74, illus.

BAIRD, S. F. Report of the Assistant Secretary . . . R. v. 19, p. 74–100.

FEILNER, John. Exploration in Upper California in 1860 under the auspices of the Smithsonian Institution. R. v. 19, p. 421–30.

LEIDY, Joseph. Cretaceous reptiles of the United States; [Memoir on the extinct reptiles of the Cretaceous formations of the United States]. S. C. v. 14, art. 6, 3 + 135 p. 20 pl. [309 fig.] Acc. in Dec. (Pub. no. 185.)

Pub. May, 1865. p. 1–8, pub. Feb., 1865; p. 9–32, Mar., p. 33–128, Apr., p. 129–35, May, 1865.

HOY, P. R. Journal of an exploration of western Missouri in 1854 under the auspices of the Smithsonian Institution. R. v. 19, p. 431–38.

1865 STIMPSON, William. Researches upon the Hydrobiinae and allied forms; chiefly made upon materials in the Museum of the Smithsonian Institution. M. C. v. 7, art. 4, 3 + 59 p. illus. (Pub. no. 201.)

Pub. May–Aug., 1865. p. 1–32, pub., May; p. 33–59, June & Aug.

BINNEY, W. G. Land and freshwater shells of North America; part 2 . . . M. C. v. 7, art. 2, 9 + 161 p. 261 illus. (Pub. no. 143.)

Pub. in Sept., 1865. Pt. 2 contains the Pulmonata limnophila and thalassophila.

See next entry for Pt. 3.

————. Land and freshwater shells of North America; part 3 . . . M. C. v. 7 art. 3, 8 + 120 p. 232 illus. (Pub. no. 144.)
Pub. in Sept., 1865. Pt. 3 contains the Ampullariidae, Valvatidae, Viviparidae, freshwater Rissoidae, Cyclophoridae, Truncatellidae, freshwater Neritidae, Helicinidae.

PRIME, Temple. Monograph of American Corbiculadae, (recent and fossil) prepared for the Smithsonian Institution M. C. v. 7, art. 5, 11 + 80 p. 86 illus. (Pub. no. 145). Pub. in Dec., 1865.

BAIRD, S. F. Report of the Assistant Secretary . . . R. v. 20, p. 75–88. Written Dec. 31.

————. Duplicate shells collected by the United States Exploring Expedition under Capt. C. Wilkes. Wash. 1865. 4 p.
See also Wilkes Explor. Exped. (1838), v. 12.

1866 PUMPELLY, Raphael. Geological researches in China, Mongolia, and Japan during the years 1862–1865. S. C. v. 15, art. 4, 7 + 161 p. 9 pl. illus. sect. maps. (Pub. no. 202.)
Pub. Apr.–Aug., 1866. See also MERRILL, (1) p. 522–23. (See Annot. Bib.). Also in his First 100 yrs Amer. Geol. 1924. p. 419–20. Preface written Aug. 1, 1866. p. 1–32, pub. Apr., p. 33–80, May; p. 81–96, June; p. 97–128, July; p. 129–61, Aug.
Contains in Appx. 1:
NEWBERRY, J. S. Descriptions of fossil plants from the Chinese coal-bearing rocks. p. 119–23. Written Sept. 25, 1865.

WISLIZENUS'S TOUR TO NORTHERN MEXICO (1846)

History

"Dr. Adolphus Wislizenus undertook this scientific tour to northern Mexico at his private expense. Leaving St. Louis in the spring of 1846 (May 4), he followed the Santa Fe road by the Cimarron route to Santa Fe. Thence he went down the Rio Grande Valley to El Paso and Chihuahua. Here the derangement which the Mexican War produced, kept him in a passive condition for six weeks. On Colonel Doniphan's arrival in that neighborhood, he accepted a situation in the medical department of the Army and returned with the troops by way of Monterey to the states (June 10, 1847)." WARREN, G. K. Pacific RR. Surv. v. 11, p. 55. 1859.

Wislizenus's report was published in 1848. Botanical collections were made by Dr. Gregg, which were described by George Engelmann. See also MERRILL (1), p. 398 for criticism of the geology in the report. Also in MERRILL, First 100 yrs Amer. Geol. 1924. p. 256–57, port.

Report

1848 WISLIZENUS, [Adolphus]. . . . Memoir of a tour to northern Mexico, connected with Col. Doniphan's Expedition in 1846 and 1847, with a scientific appendix and three maps. Washington, Tippin & Streeper, 1848. 141 p. 3 maps. tab. (In U. S. 30th Cong., 1st sess., Sen. Misc. Doc. no. 26). Serial no. 511.

Rev. in Amer. J. Sc. v. 56 (ser. 2, v. 6), p. 376–92. Nov. 1848. Also rev. in Western Journal & Civilian. St. Louis, July, 1848. v. 1, p. 363–81.

Engelmann's Botanical Report repr. in his Reprint of Papers. St. Louis, 1887. p. 39–58.

CONTENTS:

p. 3– 4 WISLIZENUS [Adolphus]. Introduction.
p. 5– 86 ————. Memoir.
p. 87–115 ENGELMANN, George. Botanical appendix. Written Dec. 1847.
p. 116– 33 WISLIZENUS [Adolphus]. Meteorological tables.
p. 135– 38 ————. Geological sketch.
p. 139– 41 ————. Maps, etc.

LYNCH'S DEAD SEA EXPEDITION (1847)

History

Lieut. W. F. Lynch was authorized to make an examination of the Dead Sea on Sept. 30, 1847. His party sailed from New York, Nov. 26, 1847. In Beirut he engaged Henry James Anderson, of New York, as physician to the expedition; and as geologist during the course of the expedition to, and exploration of, the Dead Sea. The examination continued through July, 1848.

Lynch's Report was rendered Feb. 3, 1849, and was published the same year. He also published a Narrative of the trip for popular use. The birds collected were described by John Cassin, and the botany was reported and collected by R. E. Griffith.

Bibliography

1849 LYNCH, W[illiam], F[rancis]. Narrative of the United States' Expedition to the River Jordan and the Dead Sea. Lond. 1849. 20 + 508 p. 28 pl. maps.

1850 JENKINS, John S[tilwell]. United States Exploring Expedition: Voyage of the U. S. Exploring Squadron, commanded by Capt.

Charles Wilkes . . . in 1838 . . . and 1842 . . . and an account of the Expedition to the Dead Sea under Lieutenant Lynch . . . Auburn, N. Y., James Alden, 1850. 517 p.

Another ed., Rochester & Auburn, N. Y. 1857. 517 p.

Report

1849 LYNCH, W[illiam] F[rancis]. . . . Report of an examination of the Dead Sea. Washington, 1849. 88 p. map. (In U. S. 30th Cong., 2d sess., Sen. Ex. Doc. v. 4, no. 34). Serial no. 532.

Rept. rev. in Amer. J. Sc. v. 58 (ser. 2, v. 8), p. 317–33. Nov. 1849, by Benjamin Silliman. See above, Bibliography, for Lynch's Narrative.

CONTENTS:

p. 1–45 LYNCH, W. F. Report.
p. 27–8 Instructions to Dr. Anderson, geologist in charge.
p. 46– 8 CASSIN, John. Ornithological report.
p. 49–71 GRIFFITH, R. E. Botanical report: catalogue of the plants collected in Syria and Palestine.
p. 73–88 LYNCH, W. F. Astronomical observations.

OWEN'S SURVEY OF THE CHIPPEWA LAND DISTRICT OF WISCONSIN (1847)

History

During August, September and October, 1847, David Dale Owen, assisted by J. G. Norwood, conducted a geological reconnaissance of the Chippewa Land District of Wisconsin. His Report was rendered April 23, 1848, and published the same year. For critical estimate of the geology of the Report, see also MERRILL, (1), p. 411–13. (See Annot. Bib.). This Reconnaissance was the forerunner of OWEN'S SURVEY OF WISCONSIN, IOWA & MINNESOTA (1848), q. v. See also MERRILL. First 100 yrs Amer. Geol. 1924. p. 271–73.

Bibliography

1847 OWEN, David Dale. Preliminary report containing outlines of progress of the geological survey of Wisconsin and Iowa up to October 11, 1847. Washington, 1847. (In U. S. 30th Cong., 1st sess., Sen. Ex. Doc. no. 2, p. 160–74). Serial no. 504.

Appx. L of the Ann. Rept. for 1847 of the U. S. General Land Office.

Report

1848 OWEN, David Dale. Report of a geological reconnoissance of the Chippewa land district of Wisconsin, and, incidentally, of a portion of the Kickapoo country, and of a part of Iowa and of the Minnesota Territory, made under instructions from the United States Treasury Department. Washington, 1848. 134 p. 23 pl. maps. tab. (In U. S. 30th Cong., 1st sess., Sen. Ex. Doc. v. 7, no. 57). Serial no. 509.

Rev. in Amer. J. Sc. v. 59 (ser. 2, v. 9), p. 306–7. Mar. 1850; & v. 60 (ser. 2, v. 10), p. 1–12. July, 1850.

CONTENTS:

p. 3– 72 OWEN, D. D. Report.
- ch. 1 Formations of the Upper Mississippi. p. 9–32.
- ch. 2 Formations of the Red Cedar River, of the Winnebago Reserve. p. 33–7.
- ch. 3 Formations of the interior of the Chippewa Land District. p. 38–48.
- ch. 4 Formation of Lake Superior. p. 49–67.
- ch. 5 Drift of the interior of Wisconsin. p. 68–72.

p. 73–129 NORWOOD, J. G. Report of the assistant geologist. April 23, 1848.

p. 131– 34 OWEN, D. D. List of fossil genera collected.

JACKSON'S U. S. SURVEY OF THE MINERAL LANDS OF MICHIGAN (1847)

History

Under an act approved March 1, 1847, Charles Thomas Jackson was placed in charge of the survey of the U. S. mineral lands in the state of Michigan, which had formerly been under the supervision of the state geologist of Michigan, Douglass Houghton, (see MICHIGAN GEOL. SURV. (1837)), who was assisted by W. A. Burt and Bela Hubbard, during 1845 and 1846.

Jackson carried on his work, assisted by J. D. Whitney, J. W. Foster, John Locke, G. O. Barnes, Bela Hubbard, Wolcott Gibbs, Richard Cropley, James McIntyre, G. J. Dickenson, W. W. Mather, Dennis Cooley, S. W. Hill, Edward Desor, William Schlatter, W. D. Whitney, William F. Channing, S. W. Higgins, Joseph Peabody, C. A. Joy, William A. Bernard, William Ives, George E. Smith, J. H. Mullet.

These men served for various periods through 1847 and 1848, and 1849. Jackson's Report including those of his assistants was rendered Nov. 10, 1849. Owing to some general disagreement with the federal authorities, Jackson resigned in 1849, and was succeeded by J. W. Foster & J. D. Whitney who rendered Reports in 1850 (see FOSTER & WHITNEY'S SURV. LAKE SUPERIOR LAND DISTRICT (1849)).

For critical notes on the geology of the Reports, see also MERRILL, (1), p. 414–15. (See Annot. Bib.). See also his First 100 yrs Amer. Geol. 1924. p. 278–80.

Bibliography

1846 BURT, W. A., and HUBBARD, Bela. Reports . . . on the geography, topography and geology of the United States Surveys of the mineral region of the south shore of Lake Superior, for 1845; accompanied by a list of working and organized mining companies; a list of mineral locations; by whom made, and a correct map of the mineral region, delineating the township and section lines; and also a chart of Lake Superior reduced, from the British Admiralty Survey by J. Houghton and T. W. Bristol. Detroit, 1846. 108 p. map.

Reports by Bela Hubbard & W. A. Burt, p. 1–38.
See below REPORTS: p. 802–935, by BURT & HUBBARD.

1847 JACKSON, Charles Thomas, and others. Preliminary report . . . on the Mineral Lands of the United States in the state of Michigan . . . Washington, 1847. (In U. S. 30th Cong., 1st sess., Sen. Ex. Doc. no. 2, p 175–230). Serial no. 504.

Appx. M of Ann. Rept. U. S. Gen. Land Office for 1847.
p. 175– 83 JACKSON, C. T. Report . . . Oct. 27, 1847.
p. 183– 99 LOCKE, John. Report . . . Oct. 25, 1847.
p. 199–209 CHANNING, W. F. Report . . . Oct. 18, 1847.
p. 210– 19 MCNAIR, D. K. Report.
p. 221– 30 WHITNEY, J. D. Letter on the northern peninsula of Michigan.

Reports

(1) House ed., Serial no. 571

1849 JACKSON, Charles T[homas]. Report on the geological and mineralogical survey of the mineral lands of the United States in the state of Michigan, made under the authority of an act of Congress, approved March 1, 1847, entitled: "An act to establish a land office in the northern part of Michigan, and to provide for the

sale of mineral lands in the state of Michigan." Washington, 1849. (In U. S. 31st Cong., 1st sess., H. Ex. Doc. v. 3, pt. 3, no. 5, p. 371–935, illus. 19 pl. 15 maps, tab. sect. prof.). Serial no. 571.

(2) Senate ed., Serial no. 551

————. Same . . . Wash. 1849. (In U. S. 31st Cong., 1st sess., Sen. Ex. Doc. v. 3, pt. 3, no. 1, p. 371–935, illus. 19 pl. 15 maps. tab. sect. prof.). Serial no. 551.

Report rev. in Amer. J. Sc. v. 61 (ser. 2, v. 11), p. 147–48. Jan. 1851.

CONTENTS:

p. 371–502 JACKSON, C. T. Report.

p. 502– 6 DICKENSON, C. J. Report.

p. 506– 9 MCINTYRE, J. M. Report.

p. 509– 14 BARNES, G. O. Report.

p. 515– 23 JACKSON, C. T. Meteorological and barometrical observations.

p. 524– 60 MATHER, W. W. Report.

p. 563– 72 LOCKE, John. Report: catalogue of specimens.

p. 573–605 ————. Report.

p. 605– 26 WHITNEY, J. D., and FOSTER, J. W. Synopsis of the explorations in the northern peninsula of Michigan. . . . (Made Nov. 5, 1849.)

Assisted by Messrs. Edward Desor, S. W. Hill, W. D. Whitney & William Schlatter.

p. 627–701 BARNES, G. O. Field notes made in the Ontonagon district.

p. 702– 12 GIBBS, Wolcott. Field notes.

p. 712– 58 WHITNEY, J. D. Field notes, for 1847.

p. 759– 65 FOSTER, J. W., and HILL, S. W. Statistics of the mines at Keweenaw Point.

p. 766– 72 FOSTER, J. W. Report.

p. 773–801 ————. Notes on the geology and topography of a portion of the country adjacent to Lakes Superior and Michigan in the Chippewa Land District. (Written May 26, 1849.)

p. 802–935 BURT, W. A., and HUBBARD, Bela. Reports on the linear survey, with reference to mines and minerals in the northern peninsula of Michigan in the years 1845 and 1846.

Includes:

p. 811– 32 BURT, W. A. Geological report on surveys of township lines in 1845.

p. 833– 42 HUBBARD, Bela. Geological report on surveys of township lines in 1845

p. 842– 75 BURT, W. A. Geological report . . . in 1846.

p. 876– 82 COOLEY, Dennis. Catalogue of plants collected by W. A. Burt in the primitive region south of Lake Superior in 1846.

p. 882– 98 HUBBARD, Bela. Geological report on subdivisional surveys of S. W. Higgins in 1846.

p. 899–932 IVES, William, and HUBBARD, Bela. Geological report on surveys by William Ives in 1846.

p. 933– 35 BURT, W. A. Catalogue of specimens collected in 1844.

Papers in Society Transactions

1849 JACKSON, C. T. On the geological structure of Keweenaw Point.
Rd before Amer. Assoc. Adv. Sc. (1848), Aug. 20, 1849. In its Proc. v. 2, p. 288–301. 1850.
Also in Amer. J. Sc. (1818), v. 60 (ser. 2, v. 10), p. 65–77. July, 1850.

———. Remarks on the geology, mineralogy and mines of Lake Superior.
Rd. Before Amer. Assoc. Adv. Sc. (1848), Aug. 20, 1849. In its Proc. v. 2, p. 283–87. 1850.

1854 LOCKE, John. Catalogue of rocks, minerals, ores and fossils collected by . . .
In Smith. Inst. (1846), Ann. Rept. v. 9, p. 367–83. 1854. See also following entry.

JACKSON, C. T. Catalogue of rocks, minerals, and ores collected during the years 1847 and 1848 on the Geological Survey of the Mineral Lands (U. S.) in Michigan, by . . . and deposited in the Smithsonian Institution.
In Smith. Inst. (1846), Ann. Rept. v. 9, p. *338–*350, 353–67.

ALABAMA GEOLOGICAL SURVEYS (1848)

History

"The first systematic examination into the structure of the state of Alabama was begun in 1847, by Michael Tuomey then professor of mineralogy, geology and agricultural chemistry in the University of Alabama. It was made the duty of that officer, at his appointment 'to spend such portions of his time, not exceeding four months in each year, in exploring the state, in connection with his proper department, as the trustees may consider for the advantage of the state . . .' "

"Reports of this survey were made to the Board of Trustees and extracts from the same, which were thought to be of general

interest, were published in the Tuskaloosa newspapers. The interest excited by these published extracts led to the passage by the General Assembly of the State, in January, 1848, of resolutions appointing Prof. Tuomey, geologist to the state, and requiring him to lay before the General Assembly the full reports of his Geological Surveys and Explorations.''

''The expenses of these explorations were borne by the University and the Report upon them was submitted to Governor Collier in December, 1849, which report was published at the cost of the state in 1850.

''Prof. Tuomey continued his explorations, the University of Alabama, still bearing the expense of the Survey until the passage by the General Assembly, in 1854, of an 'Act to provide for a geological and agricultural survey of the state,' by which the Governor was authorized to appoint a state geologist, and the sum of ten thousand dollars, exclusive of the salary of the state geologist, was appropriated for the purpose of employing assistants and defraying the incidental expenses of the survey.

''Prof. Tuomey received the appointment of state geologist, and early in 1854, took the field, in company with E. Q. Thornton, Esq., his assistant. Other assistants in field-work were Oscar M. Lieber, W. Echols Hollowell, and in Jan. 1855, Dr. John W. Mallett was appointed chemist to the survey.

''In the autumn of 1855, the second biennial report was submitted to the Legislature and ordered to be printed. The printing of the Report was delayed from various causes. Prof. Tuomey's death occurred in March, 1857, and upon Prof. Mallett devolved the duty of superintending the publication of the Report which appeared in 1858 . . .'' SMITH, E. A. Rept. for 1874. Geol. Surv. Alabama. p. 9–10.

The Museum of the Survey was located at Tuscaloosa, and consisted of the collections made by Prof. Tuomey during the progress of the surveys between 1847 and 1857. They were destroyed by fire in 1865. For critical estimate of the geological contents of the Reports, see also MERRILL (1), p. 408–9. See also BIBLIOGRAPHY, below.

In addition to those noted above, Tuomey received assistance from J. P. Wier, George Powell, L. Richardson, Samuel S. Graham, J. M. Hale, and Messrs. Pybas & Deshler. See also MERRILL. First 100 yrs Amer. Geol. 1924. p. 266–69.

Bibliography

1875 SMITH, Eugene A[llen]. Historical sketch of geological surveys in Alabama. Montgomery, Ala., 1875. (In Ala. Geol. Surv. Rept. for 1874. p. 9–13).

1894 ————. Geological surveys in Alabama. (In Jour. Geol. v. 2, no. 3, p. 275–87. Apr.–May, 1894).

1914 ————. Pioneers in gulf coast plain geology. N. Y., Mar. 30, 1914. (In Geol. Soc. America. Bull. v. 25, p. 157–78).
The Presidential Address.

1920 MERRILL, George P[erkins], ed. Alabama geological surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 1–12).

Reports

1850 TUOMEY, M[ichael]. First biennial report on the geology of Alabama. Tuscaloosa, Ala., 1850. 32+176 p. map. illus.
Geologic map was pub. in 1853. Rev. in Amer. J. Sc. v. 60 (ser. 2, v. 10), p. 299–300. Sept. 1850.
Preface dated Dec. 20, 1849.

CONTENTS:

pref. p. 7– 8 Origin of Survey.
pref. p. 9–13 Preface.
pref. p. 14–31 Introduction.
p. 1– 8, ch. 1 Primary & metamorphic rocks.
p. 8– 29, 2 Silurian or older fossiliferous rocks.
p. 29– 64, 3 Economical relations of the Red Mountain group.
p. 65– 93, 4 Carboniferous system.
p. 94–112, 5 Economic relations of the Carboniferous System.
p. 116– 42, 6 Cretaceous System.
p. 143– 69, 7 Tertiary System.
p. 171– 76, 8 Glossary of geological and other scientific terms.

1858 TUOMEY, M[ichael], and [MALLET, John William]. Second biennial report on the geology of Alabama, by Michael Tuomey; edited from the author's MS. and other papers, by J. W. Mallet . . . Montgomery, Ala., N. B. Cloud, printer, 1858. 19+292 p. 41 illus. pl. maps.
Report submitted Nov. 25, 1855. Rev. in Amer. J. Sc. v. 77, (ser. 2, v. 27), p. 436–37. May, 1859. Mallet's Preface dated Sept. 1858.

CONTENTS:

pref. p. 9–11 MALLET, J. W. Editor's preface.
pref. p. 13– 4 Bill to provide for a geological and agricultural survey of state.
pref. p. 15– 9 TUOMEY, Michael. Introduction.
p. 1–168 ————. Report.
ch. 1 North Alabama. p. 1–42.
2 Metamorphic rocks of East Alabama. p. 43–78.
3 Silurian rocks of Shelby, Benton & De Kalb Co. p. 79–93.
4 Economic materials derived from the older rocks. p. 94–133.
5 Cretaceous and Tertiary rocks of southeast Alabama. p. 134–57.
6 Newer (Post-Tertiary) deposits.
7 Physical features of Alabama. p. 158–68.
p. 169–222, appx. 1 MALLET, J. W. Report of the chemical department of the survey for the year 1855.
p. 223– 52, appx. 2 THORNTON, E. Q. Reports on portions of the Cretaceous and Tertiary formations.
p. 253– 75, appx. 3 TUOMEY, Michael, and MALLET, J. W. Lists of Cretaceous and Tertiary fossils in Alabama and Mississippi.
p. 279– 86, appx. 4 POWELL, George. List of localities of coal-beds.
p. 288– 89, Errata.
p. 290– 92, appx. 5 Geological map.

Papers in Scientific Journals

1857 MALLET, J. W. Results of some analyses made for the Geological Survey of the State of Alabama.
In Amer. J. Sc. (1818), v. 73 (ser. 2, v. 23), p. 181–85. March, 1857.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (1848)

History

"In conformity with a resolution of the ASSOCIATION OF AMERICAN GEOLOGISTS & NATURALISTS (1840), q. v., adopted during its session at Boston, in September, 1847, that body agreed to resolve itself into the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, and that the first meeting under the new organization should be held in the city of Philadelphia, on the third Wednesday, (20th) day of September, 1848, and

agreeably to the arrangements and invitation of the local committee then appointed, the new Association held its first regular meeting this day, September 20, 1848, at the hour of 10 A. M. in the library room of the Academy of Natural Sciences (1812), q. v.'' From AMER. ASSOC. ADV. SC. Proc. v. 1, 1849, p. 5.

''The objects of the Association are, by periodical and migratory meetings to promote intercourse between those who are cultivating science in different parts of the United States; to give a stronger and more general impulse, and a more systematic direction to scientific research in our country, and to procure for the labors of scientific men, increased facilities and a wider usefulness.'' From the CONSTITUTION.

The Association during the period before the Civil War was divided into two large sections: the one comprising general physics, mathematics, chemistry, civil engineering, and allied sciences; the second embracing Natural History, which included geology, botany, zoology, anthropology, physiology and medicine.

A list of the meetings, dates, and officers of the annual congregations are given below. Of the fifteen meetings held between 1848 and 1861, eight were presided over by naturalists, namely: W. C. Redfield, Louis Agassiz, J. D. Dana, John Torrey, James Hall, J. W. Bailey, and Isaac Lea, and Jeffries Wyman (not present at 1858 meeting, of which he was presiding officer).

The scheduled Cleveland meeting for 1852 was prevented by an outbreak of cholera, and was postponed until the following year. In 1850 and 1851 two meetings were held during each year. The scheduled 1861 meeting at Nashville was postponed until the close of the Civil War, when the Association met at Buffalo, in 1866.

The business of and papers read before the Association were published in its PROCEEDINGS, beginning with 1849. The natural history contents with accompanying bibliographical data, may be found below under the PAPERS ON NATURAL HISTORY. In several instances, the cities in which the Association met, contributed in part or in whole to the expense of printing the Proceedings.

A number of the volumes contain many papers of which only the titles are recorded, and in some cases, brief abstracts. These are included in the ''PAPERS'' below, in order to give a general idea of the topics under discussion at the time.

Meetings, Dates, Officers, Etc.

Meeting	Date	Place	President
1	1848—Sept. 20–25	Philadelphia	W. C. Redfield
2	1848—Aug. 14–21	Cambridge	Joseph Henry
3	1850—Mar. 12–16	Charleston, S. C.	A. D. Bache
4	1850—Aug. 19–24	New Haven	A. D. Bache
5	1851—May 5– 9	Cincinnati	A. D. Bache
6	1851—Aug. 19–24	Albany, N. Y.	Louis Agassiz
7	1853—July 28–Aug. 2	Cleveland	Benjamin Peirce
8	1854—Apr. 26–May 3	Washington	J. D. Dana
9	1855—Aug. 15–22	Providence	John Torrey
10	1856—Aug. 20–28	Albany, N. Y.	James Hall
11	1857—Aug. 12–20	Montreal	J. W. Bailey
12	1858—Apr. 28–May 4	Baltimore	A. Caswell
13	1859—Aug. 3– 9	Springfield	S. Alexander
14	1860—Aug. 1– 8	Newport	Isaac Lea
15	1861—Aug. 15–22	Buffalo	F. A. P. Barnard

VICE-PRESIDENT—A. Caswell (1856), J. E. Holbrook (1857), Edward Hitchcock (1858), B. A. Gould (1859), A. A. Gould (1860).

SECRETARY (PERMANENT), S. F. Baird (1851–53), Joseph Lovering (1854–66).

SECRETARY (GENERAL), W. R. Johnson (1848), E. N. Horsford (1849), L. R. Gibbes (1850), E. C. Herrick (1850), W. B. Rogers (1851), J. D. Dana (1853), J. L. Smith (1854), Wolcott Gibbs (1855), B. A. Gould (1856), John Le Conte (1857), W. M. Gillespie (1858), Wm. Chauvenet (1859), Joseph Le Conte (1860).

TREASURER, Jeffries Wyman (1848), A. L. Elwyn (1849, 1851–53, 1855–66), St. Julien Ravenel (1850), J. L. Le Conte (1854).

Bibliography

1849 AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. Proceedings . . . for 1848–date. Various places of publication, 1849–date.

v. 1, Phila., 1849; v. 2, Bost., 1850; v. 3, Charleston, S. C., 1850; v. 4–6, Washington, 1851–52; v. 7–14, Cambridge, 1855–61.

The volume for 1853 (Cleveland meeting) was pub. in 1856, the original volume having been suppressed. Abstracts for this meeting were pub. in ANNALS OF SCIENCE (1852), see below, under 1852.

1851 BACHE, A[lexander] D[allas]. Address on retiring from the duties of president . . . Wash., 1852. (In Amer. Assoc. Adv. Sc. Proc. Aug. 1851. pref. p. [41]–60).

"A few remarks in relation to the circumstances attending its organization, and to its progress, and some considerations of the direction in which we may look for its greatest usefulness."

1852 ANNALS OF SCIENCE, being a record of inventions and improvements in applied science . . . conducted by H. L. Smith. Cleveland, 1852–54. 2 v.

v. 1, Sept.–Nov. 1853, contains abstracts of the 1853 meeting held at Cleveland, the regular PROCEEDINGS of which did not appear until 1856, (on pages 207–16, 219–26, 227–41, 243–54, 255–62, 263–78, 279–82).

1856 BAIRD, S[pencer] F[ullerton]. Report of . . . the late permanent secretary of the American Association for the Advancement of Science, on the distribution and disposal of the volumes of Proceedings. Cambridge, Mass., 1856. (In Amer. Assoc. Adv. Sc. Proc. 1855. p. 287–93)

1891 GOODE, George Brown. The first national scientific Congress (Washington, April, 1844), and its connection with the organization of the American Association. Salem, Mass., July, 1892. (In Amer. Assoc. Adv. Sc. Proc. Aug., 1891. v. 40, p. 39–47).

Repr. in U. S. Nat. Mus. Ann. Rept. for 1897. pt. 2, p. 467–77 (Memorial of G. B. Goode)

Held under the auspices of the NATIONAL INSTITUTION FOR THE PROMOTION OF SCIENCE (1840), q.v.

BENJAMIN, Marcus. The American Association for the Advancement of Science. (In The Chautauquan. v. 13, no. 6, p. 727–31. Sept. 1891)

1895 PUTNAM, Frederick Ward. The history, aims and importance of the American Association for the Advancement of Science. (In Science. n. s. v. 2, p. 171–74. Aug. 16, 1895)

1896 HALE, William Henry. Early years of the American Association. (In Popular Sc. Monthly. v. 49, p. 501–7. Aug. 1896)

1898 MARTIN, Daniel S[trobel]. The first half-century of the American Association. (In Popular Sc. Monthly. v. 53, p. 822–35. Oct. 1898)

HOWARD, L[eland] O[ssian]. An account of the fiftieth anniversary meeting. Easton, Pa., Dec. 1898. (In Amer. Assoc. Adv. Sc. Proc. Aug. 1898. v. 47, p. 579–86)

1899 BENJAMIN, Marcus. . . . The early presidents of the American Association. Easton, Pa., Dec. 1899. (In Amer. Assoc. Adv. Sc. Proc. Aug. 1899. v. 48, p. 397–459, port.)

Biographical sketches with portraits of all the presiding officers from the formation of the Association through 1876.

1924 FAIRCHILD, Herman Le Roy. The history of the American Association for the Advancement of Science. (In Science. n. s. v. 59, p. 365–69, 385–90, 410–15. Apr. 25, May 2 & 9, 1924)

Discusses 1) Origin and early events; 2) Meetings; 3) Membership. Address at the 75th anniversary meeting of the Association held at Cincinnati, Dec. 29, 1923.

Papers on Natural History in the Proceedings

1848 **v. 1, September 20–25, at Philadelphia, pub. 1849. 156 p.**

BROWNE, P. A. Some notice of the fossil Cephalopodes Belemnosepia, long known by the name of "Belemnite," and of the diphosphate of iron, called "Mullicite," found together at Mullica Hill, Gloucester Co., N. J. p. 13–6. Rd Sept. 20.

EMMONS, E[benezer]. On the identity of the Atops trilineatus and the Triarthrus Beckei (Green), with remarks upon the Eliptocephalus asaphoides. p. 16–9. Rd Sept. 20.

VANCLEVE, J. W. Fossil Zoophytes of western Ohio. p. 19–24. Rd Sept. 20.

DESOR, E[dward]. On the local distribution of marine animals. p. 30. Rd Sept. 21.

Not received for printing.

DAVIS, C. H. The theory of the geological action of the tides. p. 27–30. Rd Sept. 21.

Discussion by Peirce, Gould & Redfield, p. 28–30.

heave, and depress the superficial strata of the earth. p. 40–1. Rd Sept. 21.

BAILEY, J. W. On microscopic Foraminifera, from the soundings of the Coast Survey. p. 32. Rd Sept. 21.

TUOMEY, M[ichael]. Results of observations in the Tertiary region of South Carolina. p. 32–3. Rd Sept. 21.

GERMAIN, L. J. On the forces in nature which rupture, contort, upheave, and depress the superficial strata of the earth. p. 40–1. Rd Sept. 22.

AGASSIZ, [Louis.]. On the phonetic apparatus of cricket. p. 41. Rd Sept. 22.

————. On the comparison of Alpine and northern vegetation. p. 41–2. Rd Sept. 22.

BROWN, Andrew, & DICKESON, M. W. The sediment of the Mississippi River. p. 42–55. Rd Sept. 22.

HALDEMAN, S. S. Phacops Hausmanii. p. 41. Rd Sept. 22.

AGASSIZ, [Louis]. The terraces and ancient river bars, drift, boulders, and polished surfaces of Lake Superior. p. 68–70. Rd Sept. 23.

————. On the black banded Cyprynidae. p. 70. Rd Sept. 23.

————. Monograph of garpikes. p. 70-1. Rd Sept. 23.

*HUNT, T. S. On acid springs and gypsum deposits of the Onondaga salt group. p. 71. Rd Sept. 23.

In Amer. J. Sc. (1818), ser. 2, v. 7, p. 175–78. Mar. 1849.

BOLTON, Richard. On the physical geography and geology of the northern portion of the state of Mississippi. p. 71–4. Rd Sept. 23.

AGASSIZ, [Louis]. On the origin of the actual outlines of Lake Superior. p. 79–80. Rd Sept. 23.

————. On the fossil Cetacea of South Carolina. p. 94. Rd Sept. 23.

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————. Report of the Committee appointed at a meeting of the Association of the American Geologists and Naturalists held in the city of New York, September, 1846, to make examination of phenomena in Essex County, New York, supposed to have some connextion with Indian antiquities. p. 138–42. Rd Sept. 25.

1849 **v. 2, August 14–21, at Cambridge, pub. 1850. 20 + 459 p.**

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Rec. by SMITH. INST. (1846), Nov. 15, 1849. In its Contr. to knowledge. v. 2, art. 5, 13 p. 3 pl.

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See also Wilkes Explor. Exped. (1838), v. 10.

*SEEMAN, L. Remarks on Boltonite. p. 105–9. Rd Aug. 15.

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————. On the geological structure of Keweenaw Point. p. 288–301. Rd Aug. 20.

Also in Amer. J. Sc. (1818), v. 60, p. 65–77. July, 1850.

See also U. S. Survey Mineral Lands of Michigan, by Jackson (1847).

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————. On the erratic phenomena of the central Alps. p. 311–21. Rd Aug. 20.

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*HUNT, T. S. On the geology of Canada. p. 325–34. Rd Aug. 20.

Also in Amer. J. Sc. (1818), v. 59, p. 12–9. Jan. 1850.

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————. On the structure and homologies of radiated animals, with reference to the systematic position of the Hydroid Polypi. p. 389–96. Rd Aug. 21.

GRAY, [Asa]. On some plants of the order Compositae from the Sandwich Islands. p. 397–98. Rd Aug. 21.

See also Wilkes Explor. Exped. (1838), v. 15.

GIRARD, Charles. On the embryology of Planariae. p. 398–402. Rd Aug. 21.

BAIRD, [S. F.]. On the Urodelian Batrachians. p. 402. Rd Aug. 21. Not printed.

AYRES, W. O. Observations on Leuciscus pulchellus, Lt. p. 402–6. Rd Aug. 21.

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————. On animal morphology. p. 411–23. Rd Aug. 21.

GIRARD, Charles. A monograph of the fresh water Cottus of North America. p. 409–11. Rd Aug. 21.

ALGER, Francis. On rutilated quartz crystals from Vermont, and phenomena connected with them. p. 426–32, illus. Rd Aug. 21.

Also in Amer. J. Sc. (1818), v. 60, p. 12–9, illus. July, 1850.

AGASSIZ, Louis. On the differences between progressive, embryonic, and prophetic types in the succession of organized beings through the whole range of geological times. p. 432–38. Rd Aug. 21.

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1) On the classification of Gasteropoda with reference to the systematic position of Pteropoda and Foraminifera.

2) On a new species of Crustacea, from the shores of Massachusetts.

3) On the difference between Sirenidae and true Cetacea, and the embryonic character of the former.

4) On the homologies of Acephala and Gasteropoda with reference to the systematic position of Brachiopa and Bryozoa.

5) On new species of Echinoderms, from the shores of Florida.

6) On new genera and species of Bryozoa, from the shores of Massachusetts.

7) On new genera and species of Annulata, from the shores of Massachusetts.

8) On the ovarian egg of birds and allantoidian reptiles.

9) On the histology of invertebrated animals.

10) On the homologies of Annulata and Caterpillars.

11) On the ovarian egg and embryology of Aphides.

12) On several genera of Entromostraca recently established, which have been ascertained to be embryonic states of Decapoda.

13) On the embryonic character of Palaeozoic Crustacea.

14) On the changes which fresh-water turtles undergo during their growth.

15) On the embryology of Calyptrae.

16) Colpoda and Paramaecium are larvae of Planariae.

p. 438. Rd Aug. 21.

None of these were received for printing.

————. The classification of insects from embryological data. Rd in Aug.

Rec. by Smith. Inst. (1846), Mar. 6, 1850. In its Contributions to Knowledge. v. 2, art. 6, 28 p. illus. 1850.

1850 **v. 3, March 12–16, at Charleston S, C.. pub. 1850. 23+215 p.**

RAVENEL, H. W. A catalogue of the natural orders of plants, inhabit- the vicinity of the Santee Canal, S. C., as represented by genera and species; with observations on the meteorological and topographical conditions of that section of the country. p. 2–17. Rd Mar. 12.

AGASSIZ, [Louis]. On the numeric combinations of the rings in the formation of the regions of the body of Crustacea. p. 17. Rd Mar. 12.

Not received for printing.

KNEELAND, S[amuel, Jr.] Characteristics of the Hindoo skull. p. 34–6. Rd Mar. 12.

————. The Manatus not a Cetacean, but a Pachyderm. p. 42–7. Rd Mar. 13.

Abstr. rd before Bost. Soc. Nat. Hist. (1830), Jan. 16, 1850.

MICHEL, Myddelton. Researches on the generation and development of the Opossum, Didelphys Virginiana. p. 60–4. Rd Mar. 13.

Repr. in Charleston Med. Jour. (1846), v. 6, p. 111–15, Jan. 1851.

TUOMEY, M[ichael]. On the Palaezoic rocks of Alabama. p. 65. Rd Mar. 13.

Not received for printing.

GIBBES, R. W. Remarks on the fossil Equus. p. 66–9. Rd Mar. 13.

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————. Remarks on the northern Elephas of Prof. Agassiz. p. 69. Rd Mar. 13.

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————. Fossils common to several formations. p. 70–1. Rd Mar. 13.

HOLBROOK, [J. E.] On the air bladder of the drum fish, Pogonias fasciatus, and the mechanism by which is produced the sounds emitted by that fish at certain seasons. p. 72. Rd Mar. 14.

Not received for printing.

*HARVEY, W. H. Observations on the marine flora of the United States. p. 79–80. Rd Mar. 14.

POURTALES, L. F. de. On the distribution of the Foraminiferae on the coast of New Jersey, as shown by the off-shore soundings of the Coast Survey. p. 84–8. Rd Mar. 14.

————. On the order of succession of parts in Foraminiferae. p. 89. Rd Mar. 14.

AGASSIZ, L[ouis]. On the principles of classification. p. 89–96. Rd Mar. 14.

Also in Amer J. Sc. (1818), v. 61, p. 122–27. Jan. 1851.

BACHMAN, John. On the American species of the genus Putorius. p. 97. Rd Mar. 15.

Not received for printing.

TUOMEY, M[ichael]. On the alleged subsidence of the coast of South Carolina. p. 97. Rd Mar. 15.

Not received for printing.

AGASSIZ, [Louis]. On the morphology of the Medusae. p. 119–22. Rd Mar. 15.

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RAVENEL, St. Julien. On the structure of the bones of Siren lacertina. p. 158. Rd Mar. 16.

Not received for printing.

GIBBES, L. R. On a new species of Menobranchus, from South Carolina. p. 159. Rd Mar. 16.

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RAVENEL, Edmund. On the recent Squalidae of the coast of South Carolina, and a catalogue of the recent and fossil Echinoderms of Carolina. p. 159–61. Rd Mar. 16.

TUOMEY, [Michael]. On the Cretaceous formation of Alabama. p. 161. Rd Mar. 16.

Not received for printing.

GIBBES, L. R. On the carcinological collections of the United States, and an enumeration of species contained in them, with notes on the most remarkable, and descriptions of new species. p. 167–201. Rd Mar. 16.

AGASSIZ, [Louis]. On the morphological difference of organs. p. 201. Rd Mar. 16.

Not received for printing.

HOLMES, F. S. Observations on the geology of Ashley River, S. C. p. 201–4. Rd Mar. 16.

AGASSIZ, [Louis]. On the structure of the Holcyonoid Polypi. p. 207–13. Rd Mar. 16.

1850 **v. 4. August 19–24, at New Haven, pub. 1851. 34 + 414 p.**

————. A comparison of the face of fishes, with that of other vertebrata and man. p. 10. Rd Aug. 19.

Not received for printing.

SILLIMAN, Benjamin, Jr. On the origin of a curious spheroidal structure in certain sedimentary rocks. p. 10–2. Rd Aug. 19.

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HUBBARD, O. P. On rutile and chlorite in quartz. p. 25–8, illus. Rd Aug. 20.

Also in Amer. J. Sc. (1818), v. 60, p. 350–52, illus. Nov. 1850.

ADAMS, C. B. On the nature and origin of the species of terrestrial mollusca in the Island of Jamaica. p. 29–32. Rd Aug. 20.

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————. Suggestions on changes of level in North America, during the drift period. p. 60–4, plan. Rd Aug. 21.

ROGERS, H. D. On the local formation of the United States and especially as developed in Pennsylvania. p. 65–70. Rd Aug. 21.

SQUIER, E. G. On the volcanoes of Central America, and the geographical and topographical features of Nicaragua, as connected with the proposed inter-oceanic canal. p. 101–22. Rd Aug. 21.

AGASSIZ, L[ouis[. On the structure of the mouth in Crustacea. p. 122–23. Rd Aug. 21.

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BURNETT, W. I. On utricles as the primordial forms of all animal tissues. p. 127–32. Rd Aug. 21.

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Also in Amer. J. Sc. (1818), v. 60, p. 341–43. Nov. 1850.

ADAMS, C. B. On the value of the shells of Mollusca for the purpose of distinguishing species and higher groups. p. 180–88. Rd Aug. 22.

JACKSON, C. T. On ancient pot-holes in rocks. p. 188–90. Rd Aug. 22.

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See Fremont Exped. (1842); that of (1843); & (1845). Also Smith. Inst. (1846). Contr. Knowl. v. 6, art. 1, 24 p. 10 pl. 1850–53.

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Holbrookia maculata, G.

AGASSIZ, L[ouis]. On the differences of structure of cells, and corresponding differences in their functions. p. 176. Rd Aug. 22.

Not received for printing.

*HUNT, T. S. On the Taconic system. p. 202–4. Rd Aug. 22.

AGASSIZ, L[ouis]. Remarks upon the care which certain fishes take of their eggs and young. p. 242. Rd Aug. 23.

Not received for printing.

ROGERS, H. D. On the position and character of the reptilian foot prints in the Carboniferous red shale formation of eastern Pennsylvania. p. 250–51. Rd Aug. 23.

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————. On the age of the metamorphic rocks of eastern Massachusetts. p. 254. Rd Aug. 23.

Not received for printing.

WEBER, S. Singular growth of a potato. p. 255–58. Rd Aug. 23.

GIRARD, Charles. Essay on the classification of Nemertes and Planariae —preceded by some general considerations on the primary divisions of the animal kingdom. p. 258–73. Rd Aug. 23.

Also in Amer. J. Sc. (1818), v. 61, p. 41–53. Jan. 1851.

JOHNSON, W. R. On the coal formation of central North Carolina. p. 274–76. Rd Aug. 23.

AGASSIZ, L[ouis]. On the development of compound eyes in Articulata. p. 276. Rd Aug. 23.
Not printed.

SILLIMAN, B[enjamin], Jr. On the physical characters of American micas. p. 276. Rd Aug. 23.
Printed in Amer. J. Sc. (1818), v. 60, p. 372–83. Nov. 1850.

AGASSIZ, L[ouis]. Singular development of the liver, air bladder, and kidneys, in Siluridae. p. 276. Rd Aug. 23.
Not received for printing.

————. On the development of compound organs from single cells. p. 276. Rd Aug. 23.
Not received for printing.

————. On some points in the structure of Scleroderms and Gymnodonts. p. 277. Rd Aug. 23.
Not received for printing.

*HUNT, T. S. On Canadian localities of Ilmenite and chromic iron, with remarks upon their associations with the gold of Canada and California. p. 311. Rd Aug. 23.
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SHEPARD, C. U. An account of several new mineral species. p. 311–19, illus. Rd Aug. 23.

————. On new localities of American minerals. p. 319–23, illus. Rd Aug. 23.

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AGASSIZ, L[ouis]. On fossil species of Walrus found by Prof. Fraser on the shores of New Jersey. p. 348. Rd Aug. 24.
Not received for printing.

*ROBB, James. Notice of observations on drift striae in New Brunswick. p. 349–51. Rd Aug. 24.

*HUNT, T. S. On a locality of asphaltum, and its origin. p. 351. Rd Aug. 24.
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*HUNT, T. S. On some localities of magnesite, with remarks on its connection with the origin of serpentine. p. 352. Rd Aug. 24.
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Not received for printing.

HALL, James. Remarks on the geology of Mackinac, Drummond and St. Joseph's Islands, and the northern shores of Lake Michigan. p. 354. Rd Aug. 24.

Not received for printing.

TORREY, John. On the structure and affinities of the genus Batis of Linnaeus. p. 405–6. Rd Aug. 26.

1851 **V. 5. May 5–9 at Cincinnati, pub. 1851. 24 + 261 p.**

FOSTER, J. W., & WHITNEY, J. D. On the Azoic system, as developed in the Lake Superior land district. p. 4–7. Rd May 5.

See also Foster & Whitney's Surv. Lake Superior (1849).

AGASSIZ, L[ouis]. On the limits of the class of Polypi, and the rank and succession of their chief natural divisions. p. 8. Rd May 5.

Not received for printing.

POURTALÉS, L. F. de. On the Holothuriae of the Atlantic coast of the United States. p. 8–16. Rd May 5.

WHITTLESEY, Charles, Jr. Notice of two ancient human skulls, and other bones, found in a cave near Elyria, Lorain Co., Ohio. p. 16–8. Rd May 5.

FOSTER, [J. W.], & WHITNEY, [J. D.]. On the age of the sand-stone of Lake Superior, with a description of the phenomena of the association of igneous rocks. p. 22–38. Rd May 6.

See also Foster & Whitney Survey (1849).

POURTALÉS, L. F. de. On the Gephyrea of the Atlantic coast of the United States. p. 39–42. Rd May 6.

REDFIELD, W. C. On the post-Permian date of the red sandstone rocks of New Jersey and the Connecticut valley, as shown by their fossil remains. p. 45–6. Rd May 6.

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Also in Amer. J. Sc. (1818), v. 62, p. 6–9, illus. July, 1851.

WHITTLESEY, Charles. On the "superficial deposits" of the northwestern part of the United States. p. 54–9. Rd May 6.

Remarks by Evans, Anthony, & D. D. Owen.

HALL, James. Parallelism of the Palaezoic rocks of New York, with those of the western states, and of all these with the Palaezoic strata of Europe. p. 59. Rd May 6.

Not received for printing.

AGASSIZ, L[ouis]. On the special homologies of Acephala. p. 61. Rd May 7.

Not received for printing.

HALL, Ja[me]s. On the Silurian rocks of the Lake Superior land district. p. 64. Rd May 7.

Not received for printing. Remarks by Desor, p. 64–5, by Agassiz & King, p. 65–6.

REDFIELD, W. C. On the fossil rain-marks found in the red sandstone rocks of New Jersey and the Connecticut valley, and their authentic character. p. 72–5. Rd May 7.

CHRISTY, D. On the Goniatite limestone of Rockford, Jackson Co., Indiana. p. 76–80. Rd May 7.

AGASSIZ, L[ouis]. Results of an exploration of the coral reefs of Florida, in connection with the U. S. Coast Survey. p. 81–5. Rd May 7.

KIRTLAND, J. P. Remarks on the sexes and habits of some of the Acephalous bivalve Mollusca. p. 85–91. Rd May 8.

NEWBERRY, J. S. Geographical distribution of certain species of fluviatile and terrestrial shells. p. 105–6. Rd May 8.

OWEN, D. D. Abstract of an introduction to the final report on the geological surveys made in Wisconsin, Iowa, and Minnesota, in the years 1847–'48–49 and '50, containing a synopsis of the geological features of the country. p. 119–31. Rd May 8.

See also Owen's Wisconsin, Iowa, and Minnesota Surv. (1848).

FOSTER, J. W., & WHITNEY, J. D. On the different systems of elevation which have given configuration to North America, with an attempt to identify them with those of Europe. p. 136–51. Rd May 8.

OWEN, D. D. On the paleontology of the lowest sandstones of the Northwest. p. 169–72. Rd May 8.

AGASSIZ, L[ouis]. Report on the Vertebrate fossils exhibited to the Association. p. 178–80. Rd May 9.

HALL, James. Report on the Invertebrate fossils exhibited to the Association. p. 180. Rd May 9.

Not received for printing.

HARRIS, T. W. On the history and nomenclature of some cultivated vegetables. p. 180–82. Rd May 9.

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AGASSIZ, Louis. On some points of the structure and reproduction of Physaolia. p. 205. Rd May 9.

Not received for printing.

HOUGH, F. B. On the association of certain minerals in northern New York. p. 205–6. Rd May 9.

WHITTLESEY, Charles. On the equivalency of the rocks of northeastern Ohio, and the Portage, Chemung and Hamilton rocks of New York. p. 207–21, 1 pl. Rd May 9.

BRAINERD, J[EHU]. On quartz pebbles, of the sandstone conglomerate, and reasons for rejecting the theory of "water detrition." p. 222. Rd May 9.

ENGELMANN, George. On the character of the vegetation of southwestern Texas. p. 223–28. Rd May 9.

YANDELL, L. P. On the distribution of the Crinoidea in the Western states. p. 229–35. Rd May 9.

AGASSIZ, Louis. On the special homologies of the true Starfishes and Crinoids. p. 235. Rd May 9.
Not received for printing.

ST. JOHN, Samuel. On a specimen of the fossil Ox (Bos bombifrons), found in Trumbull Co., Ohio. p. 235. Rd May 9.
Not received for printing.

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See also Owen's Wisconsin, Iowa, and Minnesota Surv. (1848).

1851 **V. 6. August 19–24, at Albany, pub. 1852. 68 + 412 p.**

HORSFORD, E. N. Solidification of the rocks of the Florida reefs, and the sources of lime in the growth of corals. p. 207–15.
Also in Amer. J. Sc. (1818). v. 64, p. 245–53. Sept. 1852.

SHEPARD, C. U. Notice of several American minerals. p. 230–32.

————. On Chalcodite; On the Triplite (Alluandite?) of Norwich, Mass. p. 232–35, illus.

DANA, J. D. On the isomorphism of the chemical compounds comprised under the mineral species Tourmaline. p. 235–38.

BLAKE, W. P. Optical and blowpipe examination of the supposed chlorite of Chester Co., Pa. p. 238–41, illus.
Also in Amer. J. Sc. (1818), v. 62, p. 339–41, illus. Nov. 1851.

FARRINGTON, A. C. Metamorphic condition of a part of the large vein of Franklinite in New Jersey. p. 241–42.

SMITH, J. L. Notice of a magnesian opal, from near Harmanjick, Asia Minor. p. 242.

*HUNT, T. S. On the Columbite of Haddam; On the octahedral peroxide of iron. p. 242.
Not received for printing.

JOHNSON, S. W. On the Houghite of Prof. Shepard. p. 243–46, illus.
Also in Amer. J. Sc. (1818), v. 62, p. 361–66, illus. Nov. 1851.

BLAKE, W. P. On the occurrence of chromate of lead in Pennsylvania, and other mineralogical notices. p. 247.

————. On a new locality of red sapphire, with notices of the associate minerals. p. 247.

LeConte, J. L. On the geographical distribution of animals in California. p. 248–54.

Kirtland, J. P. Peculiarities of the climate, flora, and fauna of the south shore of Lake Erie, in the vicinity of Cleveland, Ohio. p. 254.

Agassiz, L[ouis]. Remarks upon the unconformability of the Palaeozoic formations of the United States. p. 254–56.

Hall, James. Comparison of the geological features of Tennessee with those of the state of New York. p. 256–59.

Hough, F. B. On the existence of diluvial agencies during the earlier geological periods. p. 262–64.

Hitchcock, E[dward]. On the terraces and sea-beaches that have been formed since the Drift period, especially those along the Connecticut river. p. 264–69.

Smith, J. L. On the geology and general character of the meerschaum in the plains of Eski-Shehr (Asia Minor). p. 270.

*Hunt, T. S. Remarks on the lithological and paleontological characters of the Potsdam limestone. p. 271–73.

Hitchcock, E[dward]. On the metamorphic coalfield of Massachusetts. p. 273.

Not received for printing.

Rogers, W. B. On the passage of anticlinal axes into faults. p. 274.

Not received for printing.

Smith, J. L. On the geology of emery and corondum. p. 274.

Rogers, W. B. Notes on the geological structure of Western Vermont and Massachusetts. p. 274.

Not printed.

Wells, D. A. On the distribution of manganese. p. 275–76.

Maury, M. F. On the geological agency of the winds. p. 277–96.

Farrington, A. C. Fault in a metallic vein as seen at Sterling mine, New Jersey. p. 296.

Osborne, A. On the boulder hypothesis. p. 297.

Not printed.

Farrington, A. C. On a distorted quartz vein in Sienite. p. 297.

Not received for printing.

Rogers, H. D. On the methods of investigation adopted in the Geological survey of Pennsylvania. p. 297.

Not received for printing.

Wells, D. A. On the origin of stratification. p. 297–99.

Also rd before Bost. Soc. Nat. Hist. (1830), Oct. 1, 1851. Also in Amer. J. Sc. (1818), v. 63, p. 11–4, 1852.

Hitchcock, Edward. On the geological age of the clay slate of the Connecticut valley, in Massachusetts and Vermont. p. 299–300.

ROGERS, W. B. On the geological age of the coalbearing rocks of North Carolina. p. 300.

Not printed.

HALL, James. Remarks on the Trilobite of the Potsdam sandstone, named by Dr. Owen Dikellacephalus, and its relations to Asaphus and Ogygia. p. 301.

Not received for printing.

FOSTER, J. W. On the alternations of marine and terrestrial organic remains in the Carboniferous series of Ohio. p. 301–4.

HALL, James. Remarks upon the fossils of the Potsdam sandstone. p. 304.

Not received for printing.

ROGERS, H. D. On the vegetation of the infra-carboniferous rocks of Pennsylvania, and a description of a new genus of fossil plants. p. 304.

Not received for printing.

BRAINERD, J[ehu]. On some fossils of northern Ohio. p. 304–6, illus.

HALL, James. Remarks upon the fossil corals of the genus Favosites, and allied fossil genera Favistella, Astiocerium, and others. p. 306.

Not received for printing.

ROGERS, H. D. On some reptilian footmarks of the Infra-Carboniferous red shale of Pennsylvania. p. 306.

Not received for printing.

HALL, James. 1) On the Palaeozoic genera Trematopora, Cellepora, etc. 2) Tracks, trails, etc., in the shales and sandstones of the Clinton group from Green Bay; with remarks on the thinning out and reappearing of this portion of the Clinton group. p. 306.

Not received for printing.

TORREY, John. 1) On two new species of Juglans; 2) On the Chenopodiaceae of North America. p. 307.

Not received for printing.

BURNETT, W. I. Points in the economy of the seventeen year locust (Cicada septemdecim), bearing upon the plural origin and special local creation of the species. p. 307–12.

MAURY, M. F. On the habits of the whale. p. 312.

Not received for printing.

AGASSIZ, L[ouis]. 1) On a new type of generation observed among Medusae; 2) Monograph of the genera Dysnomia (Ag.), Complanaria (Sw.), Lampsilis (Raf.); with general remarks on the other genera of Naiades. p. 312.

Not received for printing.

BURNETT, W. I. Relations of embryology and spermatology to animal classification. p. 312–18.

GIRARD, Charles. On the classification of Mammalia. p. 319–35, 2 pl.

SALISBURY, J. H. Influence of the poison of the northern rattlesnake (Crotalus durissus) on plants. p. 336–37.

LE CONTE, John. Observations on the freezing of vegetables, and on the causes which enable some plants to endure the action of extreme cold. p. 338–59.

Also in Amer. J. Sc. (1818), v. 63, p. 84–92, 195–206. 1852.

HUNT, E. B. Views on the nature of organic structure. p. 359–64.

Also in Amer. J. Sc. (1818), v. 63, p. 53–8. Jan. 1852.

BURNETT, W. I. Relations of embryology and spermatology to some of the fundamental doctrines of physiological science. p. 368–74.

Also in Amer. J. Sc. (1818), v. 63, p. 281–85. Mar. 1852.

SQUIER, E. G. On the aborigines of Nicaraugua. p. 378.

Not received for printing.

LE CONTE, J. L. On the distinctive characteristics of the Indians of California. p. 378–82.

1852 No Meeting owing to Cholera Outbreak in Cleveland.
Postponed until 1853—see next entry.

1853 **v. 7, July 28–Aug. 2, at Cleveland, pub. 1856. 20 + [292] p.**

Abstracts of the Proceedings of this Meeting were published in the ANNALS OF SCIENCE (1852), for 1853. Abstracts for individual papers are noted below in the appropriate places. The PROCEEDINGS in its official form did not appear until 1856.

THOMAS, W. H. B. Indications of weather, as shown by animals and plants. p. 119–22.

Abstr. Ann. Sc. v. 1, p. 237–39. Sept. 1853.

HORSFORD, E. N. On the solidification of the coral reefs of Florida, and the source of carbonate of lime in the growth of corals. p. 122–47.

Abstr. Ann. Sc. v. 1, p. 239. Sept. 1853.

WINCHELL, Alexander. On the geology of the Choctaw Bluff, Greene Co., Ala. p. 150–53, illus.

SAFFORD, J. M. On the parallelism of the lower Silurian groups of Middle Tennessee with those of New York. p. 153–56.

Abstr. Ann. Sc. v. 1, p. 249–51. Oct. 1853.

NEWBERRY, J. S. On the structure and affinities of certain fossil plants of the Carboniferous era. p. 157–62, illus.

Abstr. Ann. Sc. v. 1 p. 268–70, illus. Oct. 1853.

————. On the Carboniferous flora of Ohio, with descriptions of fifty new species of fossil plants. p. 163–66.

Abstr. Ann. Sc. v. 1, p. 280–81. Oct. 1853.

————. On the fossil fishes of the cliff limestone of Ohio. p. 166–67.

Abstr. Ann. Sc. v. 1, p. 282–83. Nov. 1853.

WOOD, Alphonso. An account of six new species of plants. p. 175–79.

HOWELL, R. On the wheat-fly and its ravages. p. 179–81.

POURTALES, L. F. de. Notes on the specimens of the bottom of the ocean brought up in recent explorations of the Gulf Stream, in connection with the Coast Survey. p. 181–84.
Abstr. Ann. Sc. v. 1, p. 243. Oct. 1853.

BURNETT, W. I. On the formation and mode of development of the renal organs of the Vertebrata. p. 184–99.
Abstr. Ann. Sc. v. 1, p. 248–49. Oct. 1853.

————. On the formation and function of the Allantois. p. 200–3.
Abstr. Ann. Sc. v. 1, p. 249. Oct. 1853.

————. Researches on the development of the viviparous Aphides. p. 203–23.
Abstr. Ann. Sc. v. 1, p. 252–54. Oct. 1853.

————. On the reproduction of the toad and frog, without the intermediate stage of tadpole. p. 230–32.
Abstr. Ann. Sc. v. 1, p. 279–80. Nov. 1853.

————. On the blood corpuscle-holding cells and their relation to the spleen. p. 224–30.

————. On the signification of cell segmentation. p. 232–34.
Abstr. Ann. Sc. v. 1, p. 281–82. Nov. 1853.

SANFORD, S. N. On some points in the history of Gordius. p. 250.
Abstr. Ann. Sc. v. 1, p. 270. Nov. 1853.

RIDDELL, J. L. On the structure and transformation of Oscillaria aureliana. p. 272.
Not received for printing.
Abstr. Ann. Sc. v. 1, p. 267. Nov. 1853.

BAIRD, S. F. Account of the recent American scientific exhibition. p. 272.
Not received for printing.

BRAINERD, J[ehu]. Origin of quartz pebbles in the sandstone conglomerate, and the formation of the siliceous stratified rocks.
In Annals Sc. v. 1, p. 235–36. Sept. 1853.
Discussion by Messrs. Newberry & Hall.

REDFIELD, W. C. On the geological age and affinities of the fossil fishes which belong to the sandstone formation of Connecticut, New Jersey, and the coal field near Richmond, Virginia. p. 272.
Not received for printing.
Abstr. Ann. Sc. v. 1, p. 270–71. Nov. 1853.

WARDER, J. A. A geological reconnaissance of the Arkansas River.
Not received for printing.
Abstr. Ann. Sc. v. 1, p. 234–35. Sept. 1853.

1854 **v. 8, April 26–May 3, at Washington, pub. 1855. 56 + 316 p.**

MAURY, M. F. On the whale. p. 271.
Not received for printing.

DARBY, J. On the development of monocotyledonous stems. p. 271.
Not received for printing.

PARRY, C. C. Sketch of the general zoological structure of the region of country in connection with the United States and Mexican Boundary line. p. 271.

Not received for printing.

See U. S. & Mexican Boundary Surv. (1848).

GIRARD, Charles. Life in its physical aspects. p. 271.

Not received for printing.

SCHOTT, Arthur. The Cretaceous basin of the Rio Bravo del Norte. p. 272–83.

JOHNSTON, John. Notice of some spontaneous movements occasionally observed in the sandstone strata in one of the quarries at Portland, Connecticut. p. 283–86.

HOPKINS, William. Brief outline or general description of a remarkable fossil not known to be described and by some supposed to be an Ichthyodorulite. p. 287–90, illus.

HALL, James.

(1) Observations upon geology of the Mauvaises Terres, Nebraska, with notices of the geographical and geological range of some of the fossils of that region.

(2) Remarks upon a collection of Cretaceous fossils from Nebraska, and the absence of species known in the southern extension of the same formation.

(3) Remarks upon the results of extensive and continued collections of fossil species from a portion of the Silurian rocks of New York.

(4) On the reproduction of similar types or representative species in successive geological formations illustrated by a collection of species of the Brachiopoda from the Niagara and lower Helderberg groups of the Palaeozoic rocks of the United States.

(5) Red sandstone of the Connecticut river valley, and the proofs of its Oolitic or Liassic age. p. 290.

Not received for printing.

DANIELS, Edward. Geology of the lead mines of Wisconsin. p. 290.

Not received for printing.

ROGERS, W. B. On the age of the so-called new red sandstone of the United States. p. 290.

Not received for printing.

SILLIMAN, Benjamin, Jr. Notice of a peculiar variety of coal from Breckenridge Co., Kentucky. p. 291.

HALL, James.

1) Remarks upon the geological formation of the country along the line of the Boundary survey, based upon the examination of Dr. Parry, made under the order of Major Emory.

2) The Silurian and Devonian systems, and the nature of the evidence for drawing a line of separation between the two systems in the United States.

3) On the western limits of the Cretaceous formation on the northern continent of America, as evidenced by the various collections

that have been made by Exploring expeditions under the United States government. p. 291.

Not received for printing.

*HUNT, T. S. On the crystalline limestone of North America. p. 291.

Printed in Amer. J. Sc. (1818), v. 68, p. 193–200. Sept. 1854.

————.

1) On phosphatic organic remains in the Palaeozoic rocks.

2) On the chemical composition and metamorphoses of some sedimentary rocks.

3) On a number of mineral species. p. 291.

Not received for printing.

ROGERS, H. D. 1) Some comparative observations on Carboniferous strata of North America. 2) On some phenomena of cleavage structure, and metamorphism in coal and other strata. p. 291.

Not received for printing.

ROGERS, W. B. On the cleavage and other effects caused by trap dikes in the Middle Secondary rock of Virginia. p. 291.

Not received for printing.

1855 **v. 9, August 15–22, at Providence, pub. 1856. 46 + 311 p.**

DANA, J. D. Progress of geology (the President's "Address"). p. 1–36.

Also in Amer. J. Sc. (1818), v. 72, p. 305–34. Nov. 1856.

Repr. in Canadian Nat. & Geol. v. 1, p. 395–430. 1857.

SMITH, Sanderson. On some new localities of minerals. p. 188–89.

SMITH, J. L. Re-examination of American minerals. Pt. 5: the minerals of the Wheatley mine in Pennsylvania. p. 190–204, illus.

Also in Amer. J. Sc. (1818), v. 70, p. 242–53, illus. Sept. 1855.

WHITNEY, J. D. Remarks on some points connected with the geology of the north shore of Lake Superior. p. 204–9.

Abstract.

————. On the occurrence of the ores of iron in the Azoic system. p. 209–16.

Also in Amer. J. Sc. (1818), v. 72, p. 38–44. July, 1856.

Also in Mining Mag. (1853), v. 7, p. 67–73. July, 1856.

BLAKE, W. P. On the grooving and polishing of hard rocks and minerals by dry sand. p. 216–20.

See also Pacific RR. Surv. (1853), Williamson's Exped. v. 5.

————. Observations on the characters and probable geological age of the sandstone formation of San Francisco. p. 220–22.

Abstract.

————. Remarks upon the geology of California, from observations in connection with the United States surveys and explorations for a railroad route to the Pacific. p. 222–25.

See also U. S. Pacific R.R. Surv. (1853).

Williamson's Exped. —, v. 5.

HITCHCOCK, Edward. Description of several sections measured across the sandstone and trap of Connecticut River valley in Massachusetts. p. 225–27.

————. Additional facts respecting the tracks of the Otozoum Moodii on the Liassic sandstone of the Connecticut valley. p. 228.

————. 1) Traces of ancient glaciers in New England. 2) Inferences from facts respecting the erosions of the earth's surface, especially at rivers. p. 228.

Not received for printing.

HITCHCOCK, Edward. Account of the discovery of the fossil jaw of an extinct family of sharks, from the coal formation. p. 229–30, illus.

BLAKE, W. P. Note upon a peculiarity of the "Redwood" (genus Sequoia). p. 230.

————. Notes upon the grove of "Mammoth trees" in Calaveras Co., California. p. 231–32.

GRAY, A. B. . . . On the Ammobroma Sonorae. p. 233–36.

Note by Torrey, p. 236.

BROOKS, Charles. Laws of reproduction, considered with particular reference to the inter-marriage of first-cousins. p. 236–46.

KNEELAND, Samuel, Jr. On the sterility of many of the varieties of the domestic fowl, and of hybrid races generally. p. 246–50.

BLAKE, W. P. 1) Notice of remarkable specimens of crystallized and arborescent gold, from California. 2) On the deposits of fossil microscopic organisms at Monterey, California, with specimens. 3) Notes upon the geology and mineral association of the cinnabar sulphuret of mercury, of New Almaden, Cal., with specimens. p. 276. (No. 11–13).

Not received for printing.

ROGERS, W. B. On the stratigraphical position of the coal-bearing rocks below the upper red shale and Carboniferous limestone of the Middle and Southern states. p. 276. (No. 14).

Not received for printing.

GUYOT, A[rnold]. On the configuration of the soil of New England. p. 277. (No. 15).

Not received for printing.

DANIELS, Edward. 1) On the occurrence of Proboscidon remains in Wisconsin; 2) On the character of the lead deposits of the upper Mississippi; 3) On the occurrence of silicious grits as veinstones in the lead mines of Wisconsin. 4) Some observations on the northern outcrop of the Illinois coal formation. p. 277. (No. 16–19).

Not received for printing.

HALL, James. 1) Contributions to our knowledge of the geology of Nebraska and the Mauvaises Terres. 2) Notes upon the genus Graptolithes; 3) On the development of the septa in the genus Baculites, from the extreme young to the adult state. p. 277. (No. 20–22).

Not received for printing.

ROGERS, W. B. On some effects produced by the trap on the adjoining Liassic rocks of Virginia. p. 277. (No. 23).

Not received for printing.

BURGESS, Ebenezer. 1) Notes on the geology of western India; 2) Remarks on the geological formation of Table Mountain, Cape of Good Hope. p. 277. (No. 24–25).

Not received for printing.

AGASSIZ, L[ouis]. 1) On the metamorphic rocks of Nahant, Mass., 2) On gradation among Polypi; 3) On the system of zoology. p. 277. (No. 26–28).

Not received for printing.

TORREY, John. On the Big-Root of California, a new genus of Cucurbitaceae (Megarrhiza). p. 278. (No. 32).

Not received for printing.

GRAY, Asa. 1) Notes on the nature of the coverings of the seeds of magnolia, and on the dioecious character of species of Plantago; 2) Motions effected by plants result from the contractions of cells. p. 278. (No. 29–30).

Not received for printing.

1856 **v. 10, (pt. 2), Aug. 20–28, at Albany, pub. 1857. 48 + 240 + [259] p.**

DANA, J. D. Plan of development in the geological history of North America. p. 1–18, map.

*DAWSON, J. W. On the parallelism of the rock formations of Nova Scotia with those of other parts of America. p. 18–25.

SCHOTT, Arthur. Geological observations on the Pluto-volcanic slope of the Sierra Madre along the azimuth boundary line through Northwest Sonora, made under the direction and communicated with the permission of the United States Commissioner, Major W. H. Emory. p. 25–50.

See also U. S. & Mexican Boundary Surv. (1848).

HALL, James. On the Carboniferous limestones of the Mississippi Valley. p. 51-69, illus.

Also in Amer. J. Sc. (1818), ser. 2, v. 23, p. 187–203, illus. Mar. 1857. Also in Mining Mag. (1853), v. 9, p. 529–42. Dec. 1857.
See also IOWA GEOL. SURV. (1855).

GIBBES, L. R. Remarks on Niagara Falls. p. 69-78, illus.

LESLEY, J. P. On the Broad Top coal basin in Central Pennsylvania. p. 78–81, map.

WINCHELL, Alexander. Notes on the geology of middle and southern Alabama. p. 82–94, illus.

————. Statistics of some artesian wells of Alabama. p. 94–103.

LE CONTE, Joseph. On the agency of the Gulf Stream in the formation of the peninsula of Florida. p. 103–19, illus.

Also in Amer. J. Sc. (1818), ser. 2, v. 23, p. 46–60, illus. Jan. 1857.

BLAKE, W. P. Observations on the orography of the western portion of the United States. p. 119–34.

See also Pacific RR. Surv. (1853), Williamson's Exped., v. 5.

EMORY, W. H. General description of the country adjacent to the boundary between the United States and Mexico. p. 134–48.

See also U. S. & Mexican Boundary Surv. (1848).

FOSTER, J. W. On the geological position of the deposits in which occur the remains of the fossil elephant of North America. p. 148–69, illus.

WYMAN, J[effries]. Note on the teeth of an elephant discovered near Zanesville, Ohio. p. 169–72.

————. On a Batrachian reptile from the coal formation. p. 172–73.

Also in Amer. J. Sc. (1818), v. 75, p. 158–64, illus. Mar. 1858.

*DAWSON, J. W. Remarks on a specimen of fossil wood from the Devonian rocks, (Gaspé Sandstones) of Gaspé, Canada East. p. 174–76, illus.

HALL, James. Observations on the genus Archimedes, or Fenestella, with descriptions of species, etc. p. 176–80.

Also in Amer. J. Sc. (1818), v. 73, p. 203–4. March, 1857.

REDFIELD, W. C. On the relations of the fossil fishes of the sandstone of Connecticut, and other Atlantic states, to the Liassic and Jurassic periods. p. 180–88.

Also in Amer. J. Sc. (1818), v. 72, p. 357–63. Nov. 1856.

WORTHEN, A. H. On the occurrence of fish remains in the Carboniferous limestone of Illinois. p. 189–92.

WEINLAND, D. F. On the names of animals and plants, with reference to the origin of languages, and to the countries where nations passed their childhood. p. 193–97.

————. On the digestive apparatus of the Acanthocephala. p. 197–201.

HALL, James. On some points in the geology of the upper Mississippi valley. p. 226. (No. 48).

NEWBERRY, J. S. (1) Generalities of the geology of Oregon and northern California.

(2) The Metamorphic action of silicious thermal springs. p. 226. (No. 50–51).

Not received for printing.

TUOMEY, M[ichael]. Sketch of the progress of geology in Alabama. p. 226. (No. 52).

Not received for printing.

EMMONS, Ebenezer. The Permian and Triassic systems of North Carolina. p. 226. (No. 53).

Not received for printing.

STEVENS, R. P. Some observations on the coal fields of Illinois. p. 226. (No. 54).

Not received for printing.

WHITNEY, J. D. Notice of a remarkable instance of inclined stratification in Warren Co. N. Y. p. 227. (No. 55).

Not received for printing.

HITCHCOCK, Edward. Lateral disturbance in the surface strata in the sandstone quarries of Newark, N. J. p. 227. (No. 56).

Not received for printing.

*HUNT, T. S. 1) On some Euphotides and other felspathic rocks; 2) On the Serpentines of the Green Mountains, and some of their associates. p. 227. (No. 57–58).

Not received for printing.

BLAKE, W. P. Observations on the geology of the regions between the Mississippi and the Pacific Ocean. p. 227. (No. 59).

Not received for printing.

HALL, James. On the results of collections of fossils during a period of ten years in the limestones of the lower Helderberg. p. 227. (No. 60).

Not received for printing.

ROGERS, W. B. Proofs of the Protozoic age of some of the altered rocks of eastern Massachusetts, from fossils recently discovered. p. 227. (No. 61).

Not received for printing.

NEWBERRY, J. S. 1) The deposits of fossil fishes and reptiles of Linton, Ohio; 2) The Tertiary flora of the upper Missouri. p. 227. (No. 62–63).

Not received for printing.

FOSTER, J. W. & WYMAN, Jeffries. On the geological position of the remains of the extinct Peccary of the northwest, by J. W. Foster; together with some observations on their dentology by Jeffries Wyman. p. 227. (No. 64–65).

Not received for printing.

HITCHCOCK, E[dward] Jr. Description of a fossil shell found in the sandstone of the Connecticut valley, probably belonging to the genus Spherulites. p. 227. (No. 66).

Not received for printing.

HAMLIN, A. C. Exhibition of fossil Cetacea from Maine. p. 227. (No. 67).

Not received for printing.

WILSON, Daniel. The value of physical conformation as an element of ethnological science. p. 228. (No. 75).

Not received for printing.

WEINLAND, D. F. On the organization of the Acanthocephala. p. 228. (No. 72).

Not received for printing.

AGASSIZ, L[ouis]. 1) Animal development; Pt. 1, The egg; pt. 2, the embryo; pt. 3, one-celled animals; 2) On viviparity and oviparity; 3) On the classification of turtles. p. 228. (no. 69–71.)

HITCHCOCK, Edward. Mud-nests of the tad-pole, recent and fossil. p. 228.

Not received for printing.

1857 **v. 11, (pt. 2), August 12–20, at Montreal, pub. 1858. 56 + 204 + 187 p.**

Abstracts of the Papers rd at this Meeting are in the CANADIAN GEOL. & NAT. v. 2, p. 241–99. Sept. 1857.

SWALLOW, G. C. Explanations of the geological map of Missouri, and a section of its rocks. p. 1–21, pl.

See also Missouri Geol. Surv. (1853.)

————. Quaternary deposits of Missouri. p. 21–39 pl.

See also Missouri Geol. Surv. (1853.)

LESLEY, J. P. On three comparative sections of the coal-measures in Kentucky, and in eastern and western Pennslvania. p. 39–42.

WHITTLESEY, Charles. On the ancient mining operations of Lake Superior. p. 42–4.

*LOGAN, W. E. On the division of the Azoic rocks of Canada into Huronian and Laurentian. p. 44–7.

————. On the probable sub-division of the Laurentian series of rocks of Canada. p. 47–51.

HITCHCOCK, C. H. On the fractured ledges of slate in Vermont. p. 51–5, illus.

EMORY, W. H. On a feature in the range of the western mountain system of North America. p. 56–7.

See also U. S. & Mexican Boundary Surv. (1848.)

*DAWSON, J. W. On the varieties and mode of preservation of the fossils known as Sternbergiae. p. 67–74, illus.

————. On the newer Pliocene fossils of the St. Lawrence Valley. p. 74–5.

EMMONS, E[benezer]. Fossils of the sandstones and slates of North Carolina. p. 76–80.

HILGARD, T. C. On the structure of the head in Vertebrata and its relation to the phyllotactic laws. p. 81–96.

DANA, J. D. Thoughts on species. p. 96–109.

Also in Amer. J. Sc. (1818), ser. 2, v. 24, p. 305–16. Nov. 1857. Repr. in Canadian Geol. & Nat. v. 2, p. 369–82. 1857.

WILSON, Daniel. On the supposed uniformity of cranial type throughout all varieties of the American race. p. 109–27.

MORGAN, L. H. Laws of descent of the Iroquois. pt. 2, p. 132–48.

*HUNT, T. S. 1) On the parallelism between the rocks of the Laurentian and Silurian systems; 2) General considerations on the metamorphism of the sedimentary rocks. p. 158. (no. 41–42)

Not received for printing.

WORTHEN, A. H. On the occurrence of sharks's teeth in the drift of the Mississippi. p. 158.

HALL, James. 1) On the Cretaceous formations of the United States and the North American continent; 2) On the Carboniferous limestones and coal-measures of the United States; 3) On the direction of ancient currents of deposition, and the source of materials in the older Palaeozoic rocks, with remarks on the origin of the Appalachian chain of mountains. p. 158.

Not received for printing. (no. 36–38)

GUYOT, Arnold. On the physical structure of the continent of Africa. p. 158. (no. 35)

Not received for printing.

PEIRCE, Benjamin. Note on the formation of continents. p. 158. (no. 34)

Not received for printing.

WHITTLESEY, Charles. On the origin of anthracite and bituminous Coal. p. 158. (no. 33)

Not received for printing.

ANTISELL, T[homas]. Contributions to the geology of California and the Gadsden purchase. p. 158. (no. 32)

Not received for printing.

HITCHCOCK, Edward. On the age and dip of the Connecticut River sandstones, and the intercalation of the associated trap. p. 158. (no. 31)

Not received for printing.

*DAWSON, J. W. On some ethnological specimens from the island of Aneitum, New Hebrides. p. 159. (no. 52)

Not received for printing.

ANDERSON, M. B. Remarks on the classification of the varieties of man. p. 159. (no. 49)

Not received for printing.

LESLEY, J. P. On the flexures of the strata in the Broadtop coal field, Pennsylvania. p. 159. (no. 47)

Not received for printing.

DANA, J. D. On a species of Trilobite from the Potsdam sandstone of New York. p. 159. (no. 46)

Not received for printing.

COOK, G. H. On a subsidence of the coast of New Jersey, and of some of the adjoining states. p. 159. (no. 45)

Printed in Amer. J. Sc. (1818), v. 74, p. 341–54. Nov. 1857.

*HUNT, T. S. On some mineral waters and on the origin of magnesian rocks. p. 159. (no. 44)

Not received for printing.

1858 **V. 12, April 28–May 4, at Baltimore, pub. 1859, 57 + 319 p.**

SWALLOW, G. C. Rocks of Kansas. p. 214–21.

Also in Amer. J. Sc. (1818), v. 76, p. 182–88. Sept. 1858.

WURTZ, Henry. On the occurrence of cobalt and nickel, in Gaston Co., N. C. p. 221–27.

LIEBER, O. M. A contribution to the geologic chronology of the southern Alleghanies. p. 227–30.

BREVOORT, J. C. Remains of the American Mastodon found on Long Island, near New York. p. 232–34.

WEINLAND, D. F. Notice of two human Cestoidea, new to science. p. 254–56.

———. [Some principles of] animal psychology. p. 256–66.
Also in Amer. J. Sc. (1818), v. 77, p. 1–5. Jan. 1859.

WARNER, H. G. Marine phosphorescene. p. 286. (no. 33)
Not received for printing.

HUNT, E. B. Observations on the geological structure of Key West, and on a species of fictitious fossils abounding there. . . . p. 286. (no. 35)
Not received for printing.

HITCHCOCK, C. H. Upon the thickness of some metamorphic strata in Vermont and Massachusetts. p. 286. (no. 37)
Not received for printing.

GUYOT, Arnold. On the character, natural relations, and relative rank of the primary divisions of the vegetable kingdom, founded on differences of structure; and especially on the true rank of the class of Gymnosperms; 2) On the true elevation of the culminating points of the Appalachian system in the Black, White, and the Green Mountains. p. 286.
Not received for printing. (no. 39–40)

HITCHCOCK, Edward. Synopsis of the Ichnology of New England. p. 286. (no. 41)
Not received for printing.

SWALLOW, G. C. Grape culture in Missouri. p. 268–82.

WORTHEN, A. H. Permian rocks of southern Illinois. p. 286. (no. 42)
Not received for printing.

HALL, James. 1) Observations upon the genus Graptolithus and allied genera; 2) Observations upon the genus Meganteris and other Palaeozoic Brachiopodae. p. 287. (no. 43–44)
Not received for printing.

HURLBURT, J. B. Formation and age of Burlington Heights at Hamilton, Canada West. p. 287. (no. 46)
Not received for printing.

MOORE, Francis. Description of the coal beds near Fort Belknap, in Texas, with the subjacent and superincumbent strata, and the discovery of Fusulina limestone there. . . . p. 287. (no. 47)
Not received for printing.

KOHL, J. G. On the general features in the configuration of the bays, sounds, capes, islands, etc., of the eastern coast of the United States, and on their classification. p. 287. (no. 48)

Not received for printing.

ROGERS, H. D. The geological map of Pennsylvania. p. 287.

Not received for printing.

1859 **V. 13, August 3–9, at Springfield, pub. 1860.** [55] + 388 **p.**

LE CONTE, Joseph. The correlation of physical, chemical and vital force, and the conservation of force in vital phenomena. p. 187–203.

Also in Amer. J. Sc. (1818), v. 78, p. 305–19. Nov. 1859.

WHITTLESEY, Charles. On the drift cavities, or "Potash kettles" of Wisconsin. p. 297–301.

———. On the origin of the Azoic rocks of Michigan and Wisconsin. p. 301–8.

*DAWSON, J. W. Recent researches in the Devonian and Carboniferous flora of British America. p. 308–10.

Abstract.

*LOGAN, W. E. Contribution to the history of the Laurentian limestones. p. 310–12.

WORTHEN, A. H. Remarks on the discovery of a terrestrial flora in the mountain limestone of Illinois. p. 312–13.

Abstract from Illinois Geol. Surv. (1851)

BLAKE, W. P. Observations on the geology of the Rocky mountain chain in the vicinity of Santa Fé, New Mexico. p. 314–19.

Abstract.

ANDREWS, E. B. Relation of the river terraces of southern Ohio to the drift and drift theories. p. 319–21, illus.

HITCHCOCK, C. H. On the so-called talcose schist of Vermont. p. 321–29.

———. On the marks of ancient glaciers on the Green mountain range in Massachusetts and Vermont. p. 329–35.

———. Lake ramparts in Vermont. p. 335–37.

FIELD, Roswell. Ornithichnites. p. 337–40.

HITCHCOCK, Edward. 1) On a frozen deposit of modified drift; 2) On the conglomerate near Newport, R. I., with elongated pebbles and transverse joints; 3) On the amount and proofs of erosion in Vermont, with special reference to the peaks of protrusive rocks; 4) On a deposit of fossiliferous limestone beneath granite and mica-slate, in Derby, Vermont. p. 335.

Not received for printing. (no. 30, 31, 35, 39)

MARCY, Oliver. On the occurrence of pot-holes formed by the drift agency. p. 355.

Not received for printing.

FOSTER, J. W. On the geological position of the bones of the extinct Peccary of the West. p. 35. (no. 33)
Not received for printing.

MORRIS, J. G. A systematic reference catalogue of all the described North American Lepidoptera. p. 355. (no. 36)
Not received for printing.

CLARK, H. J. On the lasso-cells of Polypi and Acalephae. p. 355. (no. 38)
Not received for printing.

MORGAN, L. H. System of consanguinity of the red race and its relations to ethnology. p. 356. (no. 42)
Not received for printing.

HITCHCOCK, Edward. An attempt to prove that the younger metamorphic rocks have been in a plastic or semi-plastic state since their original consolidation. p. 356. (no. 43)
Not received for printing.

GRAY, Asa. Theoretical explanation of the similarity between the flora of northeastern Asia, and that of eastern North America. p. 356. (no. 44)
Not received for printing.

CLARK, H. J. On the facetted eyes of Acalephae especially of Aurelia flavidula. p. 356. (no. 45)
Not received for printing.

HITCHCOCK, Edward, Jr. Remarks on the fossil whale of Vermont (with an exhibition of the skeleton). p. 356.
Not received for printing. (no. 46)

SHEPARD, C. U. Supposed meteorite from North Carolina. p. 356. (no. 47)
Not received for printing.

BLAKE, W. P. The placer gold mines of Georgia, and the introduction of improved methods of working them. p. 356. (no. 49)
Not received for printing.

*HUNT, T. S. On the origin and formation of silicious rocks. p. 356. (no. 50)
Not received for printing.

M'CHESNEY, J. H. The relations of the upper Carboniferous rocks of Illinois to the older members of the Palaeozoic system. p. 356. (no. 51)
Not received for printing.

WHITNEY, J. D. On the stratigraphical position of the sandstone of the Connecticut river valley. p. 356. (no. 52)
Not received for printing.

ANDREWS, E. B. On the vertical planes in bituminous and other coals. p. 357. (no. 58)
Not received for printing.

LE CONTE, Joseph. On the formation of continents and oceans p. 357. (no. 56)

Not received for printing.

BLAKE, W. P. 1) On a remarkable vein of gold in the bed of the Chestatee River, Georgia; 2) On the minerals and ancient mines of the Cherokee Valley River, N. C. p. 357. (no. 55, 59)

Not received for printing.

*HUNT, T. S. On the formation of gypsum and magnesian rocks. p. 357. (no. 53)

Not received for printing.

1860 **V. 14, August 1–8, at Newport, pub. 1861. 72+256 p.**

HITCHCOCK, C. H. Geology of the Island of Aquidneck. p. 112–37, illus.

————. Synchronism of coal-beds in the New England and western United States coal-basins. p. 138–43.

HITCHCOCK, Edward. Remarks upon certain points in Ichnology. p. 144–56, illus.

————. On certain conglomerated and brecciated trachytic dykes in the lower Silurian rocks of Shelburne, in Vermont, with special reference to the degree of heat at the time of their production. p. 156–58.

————. Additional facts respecting the Clathropteris of East Hampton, Mass. p. 158–59.

JOHNSTON, Christopher. Upon a diatomaceous earth from Nottingham, Calvert Co., Maryland. p. 159–61.

BRADLEY, F. H., & BILLINGS, E[lkanah]. Description of a new Trilobite from the Potsdam sandstone, by F. H. Bradley; with a note by E. Billings. p. 161–66, illus.

Also in Amer. J. Sc. (1818), v. 80, p. 241–43, illus. Sept. 1860. (Conocephalites minutus)

CHITTENDEN, L. E. The American reindeer. p. 174–87, illus.

ROGERS, W. B. 1) Jottings on the geology of the eastern part of Maine. . . . 2) On the recent discovery by Norman Eastop, of fossils in the conglomerate of Taunton River. p. 227. (no. 27, 28)

Not received for printing.

WHITNEY, J. D. On the lead region of the upper Mississippi. p. 227. (no. 30)

Not received for printing.

FOSTER, J. W., & WHITNEY, J. D. On the origin and stratigraphical relations of the Trappean rocks of Lake Superior. p. 227. (no. 29)

Not received for printing.

AGASSIZ, L[ouis]. On the arrangement of the Museum of Comparative Zoology at Cambridge. p. 227. (no. 31)

Not received for printing.

NEWBERRY, J. S. 1) On the origin and distribution of the sediments composing the stratified rocks of North America; 2) On the surface geology of Western America. p. 227. (no. 32–33)
Not received for printing.

HITCHCOCK, C. H. Age of the so-called Taconic rocks in Vermont. p. 228. (no. 42)
Not received for printing.

NEWBERRY, J. S. On the later extinct floras of North America. p. 228. (no. 41)
Not received for printing.

JENKS, J. W. P. On the food of birds, with special results in the investigation of the food of the robin (Turdus migratorius). p. 228. (no. 40)
Not received for printing.

AGASSIZ, L[ouis]. On methods in zoology. p. 228. (no. 39)
Not received for printing.

WILSON, Daniel. On the ethnological value of the imitative faculty in relation to the characteristics of ancient and modern American races. p. 228. (no. 36)
Not received for printing.

BLAKE, W. P. Remarks on the distribution of gold in veins, with notes upon remarkable gold specimens from Georgia. p. 228. (no. 35)
Not received for printing.

WHITNEY, J. D. 1) Some points in the surface geology of the North-west; 2) On the origin of the prairies of the North-west. p. 228. (no. 34, 43)
Not received for printing.

WEBSTER, N. B. On certain phenomena of the great Dismal Swamp in Virginia and North Carolina. p. 228. (no. 38)

ESSEX INSTITUTE, SALEM, MASS., (1848)

History

"The ESSEX INSTITUTE was formed in 1848 by the union of the Essex Historical and the ESSEX COUNTY NATURAL HISTORY SOCIETY (1833), q.v. During the autumn of 1847, the Historical and Natural History Societies held several meetings to effect a union. A joint committee was appointed to draft a plan to serve as a basis of organization. The plan offered by the Committee was accepted by the Societies at a meeting held on January 14th, 1848. The Act of Incorporation from the Legislature was obtained in February of the same year, and on the first of March following, by its acceptance, the ESSEX INSTITUTE was organized.

"A committee to prepare a Constitution and by-laws was appointed and their report was accepted at a meeting held on the eighth of March. Thus organized, the Institute consists of three departments: the Historical, having for its object, the collection and preservation of whatever relates to the geography, antiquities, civil and ecclesiastical history of Essex County, in Massachusetts; the NATURAL HISTORY, for the formation of a Cabinet of natural productions in general, and more particularly of those of the County, and for a library of standard works on the natural sciences; the Horticultural, for promoting a taste for the cultivation of choice fruits and flowers, and also for collecting works on horticulture and agriculture in connection with the general library.

"The library contains about 22,000 volumes; the Museum: the several departments of the Institute are well represented and in a number of the classes of the animal kingdom, the collections are inferior to but one or two others in the country; though the crowded state of the rooms devoted to the Museum will not allow of their being so advantageously arranged as is desirable. . . . In consequence of this liberal use of its rich supply of duplicates, the Institute has been the recipient of large and valuable collections from Scientific Institutions and men, both in this country and abroad, and the specimens are arriving in such numbers as to tax its resources to their utmost in order that the proper care may be taken of these treasures. . . .

"The section of ethnology contains about 1400 specimens; there are about 220 geological specimens; 2200 mineral specimens from Essex County; 2926 specimens of fossils; 6500 species of plants; 100 specimens of sponges; 1500 of Radiates; 9000 of Mollusks; 28,015 of Articulates; 4610 of Vertebrates; and 656 specimens in the osteological collection.

"The meetings are held as follows: stated quarterly meetings; regular meetings on the 1st and 3rd Mondays of the month, and Field meetings during the summer months at such times and places as may be agreed upon. The first field meeting took place at Danvers on Tuesday, June 12, 1849. . . . These meetings were continued for two or three years, when they were discontinued in consequence of the removal by death of several of those members who were the most interested, among whom may be mentioned, Thomas Cole, Andrew Nichols. . . . In consequence of the accession of several young and enthusiastic members, these meetings were again renewed in the summer of 1856, and have been continued since that time with great success and an increasing interest.

" 'At these meetings we bring together those who feel an interest in the works of Nature, and who make them their especial study; and we place them face to face with the various phenomena of creation, as they are exhibited in our fields, our hills and our forests. By these excursions, we are relieved from the necessity of studying these things in the dry, dead cabinets of home, and the student who walks with us has a view of them as Nature has herself arranged them, drawing his conclusions from facts undisguised by the interference of man, and free from that partial and imperfect character which will ever be detected, even in the best ordered and fullest collection.' " G. D. Phippen. Essex Inst. Proc. v. 3, p. 101, August 6, 1861.

"Lectures: Two courses of miscellaneous lectures have been given by the Society; One of six lectures, during the Spring of 1863, by Professors Agassiz, S. Tenney, J. P. Cooke, W. B. Rogers, and Messrs. C. M. Tracy, and F. W. Putnam; the other, a course of ten lectures, during the winter of 1863 and 1864, by Dr. C. T. Jackson, B. Peirce, President Hill, of Harvard University, and Messrs C. W. Tuttle, Cleveland Abbe, N. E. Atwood, Alpheus Hyatt, C. M. Tracy and A. E. Verrill.

"Rev. J. L. Russell, in May, 1852, delivered a course of ten lectures on the Development of the Plant, to a private class in the rooms of the Institute; also a similar course in the months of January and February, 1859. During the winter of 1853 and 1854 several meetings were devoted by Mr. Russell to lectures on Insects. F. W. Putnam in the months of April and May, 1861, delivered a course of lectures on Zoology in the Hall of the Institute; also a course of five lectures on Insects, on the five Thursday evenings of March, 1865 at the Lyceum Hall, under the auspices of the Institute. C. M. Tracy gave a course of eight lectures on Botany, at the Institute rooms, commencing on Saturday afternoon, April 29, 1865, and continued on successive Saturdays." From the HISTORICAL NOTICE. 1865. P. 11–7 (see Bibliography below).

Officers

PRESIDENTS: 1848–61, Daniel A. White; 1861–65, Asahel Huntington; 1865, Francis Peabody.

VICE-PRESIDENTS: 1848–57, John Glen King; 1848–61, John Lewis Russell; 1848–1860, John Clarke Lee; 1858–1862, Henry Mason Brooks; 1860–1864, James Upton; 1861, Samuel P. Fowler; 1862, Abner C. Goodell, Jr.; 1864, John Fiske Allen.

CABINET-KEEPERS: 1848–49, Frederic Howes, Jr.; 1850–56, George A. Perkins; 1856–57, Frederick A. Putnam; 1857–1860, Caleb Cooke; 1860–64, Richard Wheatland.

TREASURER: Henry Wheatland, 1848.

SUPERINTENDENT OF MUSEUM: Frederic W. Putnam.

CURATORS OF NATURAL HISTORY DEPARTMENT:

1848–56	William Mack
1848	Henry F. King
1848–56	Samuel P. Fowler
1856–61	John Lewis Russell
1856–62	Frederic Winsor
1856	Frederic W. Putnam
1856–59	Charles R. Waters
1856–57	Charles J. Lee
1856–63	Richard H. Wheatland
1856	Henry Wheatland
1856	Caleb Cooke
1856–61	George A. Perkins
1856–60	Benjamin F. Mudge
1856	Henry F. Shephard
1857–59	Pickering D. Allen
1860–63	David M. Balch
1861	Cyrus M. Tracy
1863–64	Thomas M. Pond
1863	James H. Emerton
1863	Charles H. Higbee

Bibliography

1848 ESSEX INSTITUTE. Proceedings . . . 1848–1867. Salem, Mass., Essex Institute, [1848]–70. 6 v.

For dates of publications of the various volumes see below PROCEEDINGS: Dates of Publication. With v. 4, COMMUNICATIONS to the Essex Institute were issued separately, at the same time with corresponding numbers of the PROCEEDINGS. Ceased publication, with v. 6, and a new series, the BULLETIN, was begun in 1869 see below).

1855 ————. Act of incorporation, constitution and by-laws of the Essex Institute, incorporated February, 1848, with a catalogue of the officers and members. Salem, Mass., Printed by Ives & Pease. Dec., 1855. 24 p.

Remarks explanatory of the objects of the Institute, p. 3–8; and of the Natural History Department, p. 4–5.

1865 ————. An historical notice of the Essex Institute; Act of incorporation, constitution and by-laws, and a list of the officers and members. Salem, Mass., Printed by the Institute, Dec. 1865. 44 p.

History of the ESSEX COUNTY NAT. HIST. SOC. (1833). q.v., p. 8–11.

1869 ————. Bulletin of the . . . for 1869–1898. Salem, Mass., Essex Inst., 1869–98. 30 v.
Ceased publication with v. 30.

1873 ————. Twenty-fifth anniversary—Wednesday, March 5, 1873. (In Essex Inst. Bull. v. 5, p. 42–76. 1873)

1880 ROBINSON, John. Notes on the flora of Essex County, Massachusetts, with sketches of the early botanists, and a list of the publications on these subjects. Salem, Mass., July–Sept. 1880. (In Essex Inst. Bull. v. 12, no. 7–9, p. 81–97)
Bibliography, p. 95–6.

1884 MC DANIEL, B. F. Geology and mineralogy in Essex County, Massachusetts. Salem, Mass., July–Dec. 1884. (In Essex Inst. Bull. v. 16, p. 133–40.)
An historical account.

1884 FOWLER, Samuel P[age]. A historical sketch: the Essex County Natural History Society and the Essex Institute. Salem, Mass., July–Dec. 1884. (In Essex Inst. Bull. v. 16, no. 7–12. p. 141–45)
See also ESSEX COUNTY NAT. HIST. SOC. (1833).

ROBINSON, John. The progress of botany in Essex County during the last half-century, especially as influenced by the Essex County Natural History Society and the Essex Institute: 1834–1884. Salem, Mass., July–Dec. 1884. (In Essex Inst. Bull. v. 16, no. 7–12, p. 122–32)

MORSE, E[dward] S[ylvester]. Notes on the condition of zoology, fifty years ago and of today; in connection with the growth of the Essex Institute. Salem, Mass., July–Dec. 1884. [In Essex Inst. Bull. v. 16, no. 7–12, p. 113–21)

1898 ESSEX INSTITUTE. The first half-century of the Essex Institute, commemorated at Salem, March first and second, 1898. Salem, Jan.–June, 1898. 3 + p. 1–100, illus. pl. (In its Bull. v. 30, no. 1–6)
Repr. as a separate, Salem, 1898. 100 p.

Proceedings (P), and Communications (Com.)

Dates of Publication

With v. 4, COMMUNICATIONS to the Institute were issued with the PROCEEDINGS, separately paged.

v. 1,	for 1848, June –1856, May 12,	pub. 1856.	276 p.
2,	1856, May 14–1860, Apr. 26,	1862.	438 p. 1 pl.
3,	1860, May 7–1863,	1864.	302 p.
4,	1864 –1865,	1864–66.	195 + 6 + 244 p. 14 pl.

5,	1866	–1867,	1867–68.	7 + 215 + 4 + 339 p. 4 pl.
6,	1867	–1870,	1868–70.	7 + 79 + 178 p. 2 pl.

Papers on Natural History

1849 ANON. Field meeting at Danvers and Wenham. P. v. 1, p. 12. June 12.

ANON. Field meeting in the vicinity of Lynnfield. P. v. 1, p. 12–3. July 24.

ANON. Field meeting in Essex Woods, Manchester and vicinity. P. v. 1, p. 13. Aug. 28.

1850 COLE, Thomas. A list of infusorial objects found chiefly in the neighborhood of Salem, Mass., with a sketch of the progress in this branch of natural history. P. v. 1, p. 33–48. Rd May 8.

ANON. Field meeting at Hamilton, Essex County. P. v. 1, p. 13–4. June 19.

ANON. Field meeting at North-Andover, Sutton's Mills. P. 1. 1, p. 14–5. Aug. 16.

1851 RUSSELL, J. L. . . . Remarks on the flora of the vicinity of Brattleborough, Vt., especially of the cryptogamic plants found by him on Mine Mountain. P. v. 1, p. 15–6. Rd Dec. 11.

1852 WHEATLAND, Henry. . . . Observations on the history of Goliath beetles . . . P. v. 1, p. 17. Rd Jan. 8.

————. On the Physalia Atlantica. P. v. 1, p. 19. Rd Mar. 18.

PERKINS, G. A. On several species of ants from tropical Africa. P. v. 1, p. 20–1. Rd April 21.

1853 RUSSELL, J. L. The Protococcus nivalis or red snow of the Arctic regions. P. v. 1, p. 24. Rd Jan. 6.

FOWLER, S. P. Our birds, their past and present history. P. v. 1, p. 24. Rd Jan. 6.

————. The present history of the birds of New England. P. v. 1, p. 25. Rd Mar. 10.

TUFTS, Samuel, Jr. A list of shells, collected at Swampscot, Lynn and vicinity. P. v. 1, p. 25–32. Rd Mar. 10.

RUSSELL, J. L. Hydrothyria venosa, a new genus and species of the Collemaceae. P. v. 1, p. 188–91. Rd June 8.

————. On the science and progress of entomology. P. v. 1, p. 54, 59–61, 68–72. Rd Dec. 3, 1853 & Jan. 19 & Mar. 30, 1854.

1854 WHEATLAND, Henry. . . . On the skull of the walrus . . . in the cabinet of the soceity . . . P. v. 1, p. 62–4. Rd Feb. 2.

PERKINS, G. A. . . . On the geography, natural history, etc., of the western coast of Africa (especially of Cape Palmas). P. v. 1, p. 66–8. Rd Mar. 16.

PHIPPEN, G. D. On the advantages and uses of natural history. P. v. 1, p. 72–3. Rd April 19.

RUSSELL, J. L. On the Victoria regia or the great water lily of America. P. v. 1, p. 81–8. Rd Dec. 21.

1855 ————. On the Myriangium Curtsii, at Hingham . . . P. v. 1, p. 146. Rd. Nov. 23.

PUTNAM, F. W. Fishes of Essex County. P. v. 1, p. 144–46, 148, 201. Rd Nov. 23 & Dec. 14, 1855 & Feb. 25, 1856.

1856 CHUTE, A. P., and STREETER, G. L. On some newly discovered minerals. P. v. 1, p. 151–54. Rd Jan. 14.
Cancrinite, Elaeolite, Zircon.

RUSSELL, J. L. Contributions to the cryptogamic flora of Essex County. P. v. 1, p. 191–94. Rd Feb. 11.

————. Account of some new hybrid varieties of grapes, originating in Salem, Mass., through experiments of John Fisk Allen. P. v. 1, p. 195–99. Rd Feb. 11.

PUTNAM, F. W. Catalogue of the birds of Essex County. P. v. 1, p. 201–31. Rd Feb. 25.

WHEATLAND, Henry. On the anatomical structure of the rabbit, together with an account of some of its habits, artificial rearing and breeding . . . P. v. 1, p. 240–41. Rd Mar. 24.

RUSSELL, J. L. Contributions to the horticultural department: Notice of three varieties of native wild columbine, (Aquilegia Canadensis, L.) P. v. 1, p. 268–70. Com. May 12.

OAKES, William. Collectanea botanica; or, Notices of rarer plants found in Essex County, Mass., from the MSS notes of the late William Oakes. P. v. 1, p. 270–73. Com. May 12.

RUSSELL, J. L. On the importance of the herbarium. P. v. 2, p. 14–20. Rd May 14.

WEINLAND, D. F. Egg-tooth of the snakes and lizards. P. v. 2, p. 28–32, 186, 1 pl. Rd June 21.

ANON. Field meeting at Manchester. P. v. 2, p. 33–7. July 18.

ANON. Field meeting at Danvers. P. v. 2, p. 40–1. Sept. 13.

ANON. Field meeting at Lynnfield. P. v. 2, p. 45–8. Oct. 15.

1857 RUSSELL, J. L. "Examination of the early botany of New England" . . . P. v. 2, p. 94–115. Rd Jan. 9.
With especial reference to the botany contained in Josselyn, John. New England's Rarities discovered . . . (2d ed.). Lond. 1675. For 1st ed. see Bibliography of Books & etc., under 1672.

WEINLAND, D. F. On the armature of the lower bill of the hatching Tringa pusilla, Wilson. P. v. 2, p. 115–16. Rd Jan. 23.

MUDGE, B. F. The salt marsh formations of Lynn. P. v. 2, p. 117–19. Rd Feb. 13.

RUSSELL, J. L. Some notes on the cryptogamic vegetation of Fayal, Azores, etc., collected by Rev. T. W. Higginson. P. v. 2, p. 134–37. Rd Mar. 27.

————. On some plants in the vicinity of Salem. P. v. 2, p. 146–49. Rd Apr. 24.

BUTTERICK, S. B. Calendars of spring for 1855 and 1856. P. v. 2, p. 172–73. Rd May 8.

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TRUE, Joseph. Shells gathered about Salem, Mass., with particular localities designated and remarks on the species. P. v. 2, p. 187–97. Rd May 13.

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ANON. Field meeting at Manchester. P. v. 2, p. 216–19. Rd Aug. 4.

ANON. Field meeting at West Lynn. P. v. 2, p. 221–25. Rd Aug. 26.

ANON. Field meeting at Hamilton. P. v. 2, p. 226–30. Rd Sept. 16.

1858 BUTTRICK, S. B., and [PAGE, Ann L.] List of plants found in Salem, and within seven or eight miles of Salem. P. v. 2, p. 233–42. Rd Jan. 14.

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ANON. Field meeting at Nahant. P. v. 2, p. 266–71. Rd June 2.

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ANON. Field meeting at Newburyport. P. v. 2, p. 277–81. Rd June 30.

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ANON. Field meeting at North Danvers. P. v. 2, p. 295–302. Rd Aug. 18.

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ANON. Field meeting at Marblehead Neck. P. v. 2, p. 302–6. Rd Sept. 8.

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WHEATLAND, R. P. On some European fishes . . . P. v. 2, p. 318–19. Rd Dec. 9.

1859 FOWLER, S. P. Ornithology of the United States, its past and present. P. v. 2, p. 327–34. Rd Jan. 13.

WHEATLAND, R. H. and PUTNAM, F. W. On the coloration of fishes, P. v. 2, p. 364–68. Rd April 28.

ANON. Field meeting at Wenham. P. v. 2, p. 377–80. Rd June 2.

ANON. Field meeting at Middleton. P. v. 2, p. 380–86. Rd June 15.

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ANON. Meeting at North Andover. P. v. 2, p. 395–403. Rd Aug. 11.

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ANON. Field meeting at Beverly Farms. P. v. 2, p. 410–16. Rd Oct. 5.

1860 ANON. Field meeting at Topsfield. P. v. 3, p. 10–6. Rd June 8.

ANON. Field meeting at Groveland. P. v. 3, p. 16–20. Rd June 27.

OSGOOD, George. Tulip tree (Liriodendron). P. v. 3, p. 18–9. Rd June 27.

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ANON. Field meeting at Hamilton. P. v. 3, p. 28–37. Rd Aug. 2.

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Anon. Field meeting at East Boxford. P. v. 3, p. 81–6. Rd June 18.

Fowler, S. P. Jaunt to Carey's Ridge. P. v. 3, p. 86. Rd June 18.

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Anon. Field meeting at Lynnfield. P. v. 3, p. 87–92. Rd June 26.

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Gregory, J. J. H. Geology of Gloucester. P. v. 3, p. 96. Rd July 12.

Phippen, G. D. Natural history of Gloucester. P. v. 3, p. 97–8. Rd July 12.

Anon. Field meeting at Lynn. P. v. 3, p. 100–7. Rd Aug. 6.

Tracy, C. M. . . . Vegetation, minerals . . . P. v. 3, p. 102–4, 105. Rd Aug. 6.

Anon. Field meeting at Middleton. P. v. 3, p. 107–12. Rd Aug. 29.

Gregory, J. J. H. Geology of Middleton. P. v. 3, p. 109. Rd Aug. 29.

Tracy, C. M. Plants from Middleton. P. v. 3, p. 109–10. Rd Aug. 29.

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1862 Verrill, A. E. Notice of a Primoa from St. George's Bank. P. v. 3, p. 127–29. Rd Feb. 3.

————. On the structure of corals and the polyps producing them. P. v. 3, p. 132–36. Rd Mar. 10.

————. Catalogue of the birds found at Norway, Oxford County, Maine. P. v. 3, p. 136–60. Rd Mar. 10.

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1863 ANON. Field meeting at Swampscott. P. v. 3, p. 251–58. Rd June 10.

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ANON. Field meeting at Rockport. P. v. 3, p. 272–78. Rd Aug. 7.

SHEPPHARD, S. A. D., and MARKOE, G. F. H. Plants collected at Salisbury and Amesbury, June 25, 1863. P. v. 3, p. 272. Rd Aug. 7.

JACKSON, C. T. Mineralogy of Rockport. P. v. 3, p. 274–75. Rd Aug. 7.

TRACY, C. M. Plants at Rockport. P. v. 3, p. 276–77. Rd Aug. 7.

ANON. Field meeting on Salem Neck. P. v. 3, p. 278–82. Rd Aug. 20.

2000 people present, the largest gathering of its kind at that period.

WHEATLAND, Henry. Minerals at Salem Neck. P. v. 3, p. 280. Rd Aug. 20.

PUTNAM, F. W. Notes on the habits of some species of humble bees. Com. v. 4, art. 5, p. 98–104. Com. Oct. 22.

————. Notes on the leaf-cutting bee. Com. v. 4, art. 6, p. 105–7. Com. Oct. 22.

ANON. Field meeting at Newburyport. P. v. 3, p. 282–88. Com. Oct. 22.

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Emerson, G. H. On magnetite and an unknown mineral at Nahant. Com. v. 4, art. 2, p. 6–7. Com. Feb. 8.

Packard, A. S., Jr. Notes on the family Zygaenidae. Com. v. 4, art. 3, p. 7–47, 2 pl. [8 fig.] Com. Feb. 22.

————. The humble bees of New England and their parasites, with notices of a new species of Anthophorabia and a new genus of Proctotrupidae. Com. v. 4, art. 7, p. 107–40, 1 pl. [9 fig.] Com. April 23.

Allen, J. A. Catalogue of the birds found at Springfield, Mass., with notes on their migrations, habits . . . together with a list of those birds found in the state not yet observed at Springfield. Com. v. 4, art. 4, p. 48–98. Rd May 2.

Phippen, G. D. Wild flowers . . . P. v. 4, p. 24–8. Rd May 2.

Anon. Field meeting at East Saugus. P. v. 4, p. 43–6. Rd July 13.

Anon. Field meeting at North Beverly. P. v. 4, p. 47–9. Rd July 27.

Anon. Field meeting at Gloucester. P. v. 4, p. 50–4. Rd Aug. 10.

Anon. Field meeting at Rockville, South Danvers. P. v. 4, p. 54–8, Rd Aug. 25.

Anon. Field meeting at Newburyport. P. v. 4, p. 58–63. Rd Sept. 16.

Hyatt, Alpheus, Jr. Observations on Polyzoa, suborder Phylactolaemata. Com. v. 4, art. 13, p. 197–228, 8 pl. [68 fig.] Com. Oct. 10.

Cont. in Com. v. 5, art. 6, p. 97–112, 145–60. Mar. & Nov. 1866.

Allen, J. A. Notes on the habits and distribution of the duck-hawk, or American peregrine falcon, in the breeding season, and description of the eggs. Com. v. 4, art. 10, p. 153–61. Com. Nov. 14.

Balch, D. M. On native grapes. Com. v. 4, art. 8, p. 140–44. Rd Dec. 26.

1865 Allen, J. A. Notice of a foray of a colony of Formica sanguinea, Latr., upon a colony of a black species of Formica, for the purpose of making slaves of the latter. Com. v. 5, art. 2, p. 14–6. Com. Feb. 20.

Verrill, A. E. Classification of Polyps: (Extract condensed from a Synopsis of the Polypi of the North Pacific Exploring Expedition . . .) pt. 1. Com. v. 4, art. 9, p. 145–52. Com. Feb. 29.

See also Rodgers & Ringgold Exped. (1853).

————. Synopsis of the Polyps and Corals of the North Pacific . . . Expedition . . . from 1853–1856; collected by Dr. Wm. Stimpson, naturalist to the expedition, with descriptions of some additional species from the west coast of North America: pt. 2. Com. v. 4, art. 12, p. 181–96, 2 pl. [10 fig.] Com. Feb. 29.

Pt. 2, above contains the Alcyonaria.

Pt. 3, the Madreporaria, in Com. v. 5, art. 3, p. 17–50, 2 pl. [15 fig.] Pub. May 12, 1866.

Pt. 4, the Actinaria, in Com. v. 5, art. 13, p. 315–30, 3 pl. Pub. Dec. 1868.

Pt. 5, the Actinaria (cont.) in Com. v. 6, p. 51–104, 2 pl. [11 fig.] July–Nov. 1869.

See also Rodgers & Ringgold Exped. (1853).

Atwood, N. E. Species of native fish . . . P. v. 4, p. 101–3. Rd Mar. 6.

Anon. Field meeting at Nahant. P. v. 4, p. 126–30. Rd June 7.

Morse, E. S. A classification of the Mollusca based on the principle of cephalization. Com. v. 4, art. 11, p. 162–80, 1 pl. Rd June 19.

Anon. Field meeting at Standley's Grove, Beverly. P. v. 4, p. 132–37, Rd June 24.

Anon. Field Meeting at Reading. P. v. 4, p. 146–49. Rd July 13.

Anon. Field meeting at Georgetown. P. v. 4, p. 150–55. Rd July 27.

Anon. Field meeting at North Andover. P. v. 4, p. 156–60. Rd Aug. 18.

Anon. Field meeting at Newburyport. P. v. 4, p. 161-66. Rd Sept. 7.

Gill, Theodore. Prodrome of a monograph of the Pinnipedes. Com. v. 5, art. 1, p. 3–13. Com. Oct. 16.

Atwood, N. E. On the lobster. P. v. 4, p. 178–80. Rd Dec. 4.

OWEN'S SURVEY OF WISCONSIN, IOWA, AND MINNESOTA (1848)

History

In 1848, David Dale Owen was ordered by the United States Treasury Department to continue the surveys begun in his: "OWEN'S SURVEY CHIPPEWA LAND DISTRICT OF WISCONSIN (1847)", q.v., the Report of which was published in 1848.

Owen's assistants during the period of the newer survey which embraced Wisconsin, Iowa and Minnesota and a part of Nebraska, were J. G. Norwood, John Evans, B. F. Shumard, B. C. Macy, Charles Whittlesey, Henry Pratten, F. B. Meek, J. Beal, G. K. Warren, A. Litton, Richard Owen. Descriptions for the Final Report were also provided by Joseph Leidy in palaeontology, C. C. Parry, John Torrey, S. B. Mead and W. S. Sullivant in botany. Work was carried on between 1848 and 1850. Owen submitted a preliminary report in 1849. His Final Report was submitted under date of October 30, 1851.

The Final Report was issued in 1852 in a large quarto volume, with an added volume of illustrations, of which G. P. MERRILL, says: "The illustrations of the fossil remains are of particular interest, being medal-ruled on steel, the first of their kind produced in America."

For critical review of the geological contents of the Report see also MERRILL. (See Annot Bib.). p. 413–14.

See below, PAPERS IN SOCIETY TRANSACTIONS, for papers published in other places, previous to the appearance of the Final Report. See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 273–76.

Bibliography

1848 OWEN, David Dale. Report of a geological reconnoissance of the Chippewa land district of Wisconsin, and incidentally, of a portion of the Kickapoo country, and of a part of Iowa and of the Minnesota Territory, made under instructions from the United States Treasury Department. Washington, 1848. 134 p. 23 pl. maps, tab. (In U. S. 30th Cong., 1st sess., Sen. Ex. Doc. v. 7, no. 57) Serial no. 509.

For Contents, see OWEN'S SURV. CHIPPEWA LAND DIST. (1847).

Report

1852 OWEN, David Dale. Report of a geological survey of Wisconsin, Iowa, and Minnesota; and incidentally of a portion of Nebraska Territory; made under instructions from the United States Treasury Department. Phila. Lippincott, Grambo & co., 1852. 638 + 56 p. 72 illus. port. 27 pl. [260 fig]. 16 sect. maps. 4°.

Rev. in Amer. J. Sc. v. 65 (ser. 2, v. 15), p. 296–99. March, 1853; & v. 66 (ser. 2, v. 16), p. 86–95. Nov. 1853.

Also rev. in Franklin Inst. Jour. ser. 3, v. 27, p. 131–33, 182–86, 268–70, 347–49. 1854.

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Mosses labelled, by W. S. SULLIVANT; and Grasses and sedges, by John TORREY and S. B. MEAD.

p. 622– 34 PRATTEN, Henry. Systematic catalogue of birds observed in northern Wisconsin and Minnesota. art. 6.

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Papers in Society Transactions

1850 OWEN, D. D., and SHUMARD, B. F. Descriptions of fifteen new species of Crinoidea from the Sub-Carboniferous limestone of Iowa, Wisconsin and Minnesota, collected by . . . in 1848–49.

Rd before Phila. Acad. Nat. Sc. (1812), Aug. 20, 1850. In its Jour. n. s. v. 2, pt. 1, p. 57–70, 1 pl. [16 fig.] Nov. 1850.

1851 OWEN, D. D. Abstract of an introduction to the Final Report on the Geological Surveys made in Wisconsin, Iowa and Minnesota in the years 1847–48, '49, and '50, containing a synopsis of the geological features of the country.

Rd before Amer. Assoc. Adv. Sc. (1848), May 8, 1851. In its Proc. v. 5, p. 119–31.

————. On the number and distribution of fossil species in the Palaeozoic rocks of Iowa, Wisconsin and Minnesota.

Rd before Amer. Assoc. Adv. Sc. (1848), May, 9, 1851. In its Proc. v. 5, p. 235–39.

1852 OWEN, D. D. Remarks on a geological map of Wisconsin, Iowa and Minnesota.
Rd before Phila. Acad. Nat. Sc. (1812), Nov. 9, 1852. In its Proc. v. 6, p. 189–91.

1854 ————. Catalogue of geological specimens collected by . . . and deposited in the Smithsonian Institution, December, 1851.
In Smith. Inst. (1846), Ann. Rept. v. 9, p. 393–96. 1854.

UNITED STATES AND MEXICAN BOUNDARY SURVEY (1848)

History

The survey of the boundary between the United States and Mexico, known as the UNITED STATES AND MEXICAN BOUNDARY SURVEY, was first begun in 1848 by virtue of the treaty between the two governments dated February 2, 1848, at Guadalupe Hidalgo.

Between 1848 and 1853 the United States sent as its commissioners in charge of the survey R. B. Campbell, Col. J. D. Graham, and J. R. Bartlett. Work was carried on under great difficulties through 1853, owing to the mismanagement of the affairs of the Commission, general disorganizations, changes in personnel, etc. On August 15, 1854, W. H. Emory, who had been Astronomer of the Expedition was appointed United States Commissioner, and completed the Survey, by virtue of the act passed Dec. 30, 1853.

Dr C. C. Parry accompanied the expedition in the capacities of botanist and geologist; and under the re-organization of the Commission was succeeded by C. B. R. Kennerly as physician and naturalist of the party. Arthur Schott, J. H. Clark, George Thurber, Charles Wright, M. T. W. Chandler, Lt. N. M. Michler, E. A. Phillips, John Potts, Maj. William Rich, Charles Radziminski, Capt. Van Vliet were also attached to the Survey at various periods and made natural history collections. Schott was the scientist of the survey.

A final report in three volumes of the work of the survey was published in 1857–59 in both a House and a Senate edition. The natural history collections were described by James Hall, George Engelmann, Charles Girard, T. A. Conrad, John Torrey, S. F. Baird, J. L. Le Conte, Robert Kennicott, C. C. Parry, D. C. Eaton, Chester Dewey, W. H. Emory, and Asa Gray.

Other collections in the Survey were made by T. H. Webb, Dr Luis Berlandier, Lt. D. N. Couch. The Survey was completed in 1855, after seven years of operations under four commissioners. The new Gadsden treaty of Dec. 30, 1853 was the basis for the renewal of the survey in 1854.

For details of the routes followed and the regions explored, see WARREN, p. 82–5. For a brief critical note on the geology, see MERRILL. First 100 yrs. Amer. Geol. 1924. p. 338–39.

The Zoological collections were in part described in v. 8–10, the general zoological report of the PACIFIC RAILROAD SURVEYS (1853), v. 8–10, q.v.

Over twenty papers concerning the collections of the expedition and the description of the country surveyed appeared in the current scientific journals, the majority of them before the publication of the official Report in 1857–59. See below PAPERS IN SOCIETY TRANSACTIONS.

Bibliography

1852 BARTLETT, John Russell. . . . Report . . . in relation to the Mexican Boundary Survey. Washington, 1852. 515 p. maps. (In U. S. 32d Cong., 1st sess., Sen. Ex. Doc. v. 14, no. 119) Serial no. 626.

GRAHAM, James Duncan. Report of . . . on the subject of the boundary line between the United States and Mexico. Washington, 1852. 250 p. maps. (In U. S. 32d Cong., 1st sess., Sen. Ex. Doc. v. 14, no. 121) Serial no. 627.

1854 BARTLETT, John Russell. Personal narrative of explorations and incidents in Texas, New Mexico, California, Sonora, and Chihuahua, connected with the United States and Mexican Boundary Commission during the years 1850, '51, '52, and '53. N. Y. Appleton, 1854. 2 v. illus. pl. maps.

v. 1, 22 + 506 p.; v. 2, 17 + 624 p. Repr. London, 1854, by Routledge. 2 v.

1855 GRAY, A. B. Report and map . . . relative to the Mexican Boundary. Washington, 1855. 50 p. (In U. S. 33rd Cong., 2d sess., Sen. Ex. Doc. v. 7, no. 55) Serial no. 752.

Report

(1) Senate ed., Serials no. 832, 833, 834.

1857 EMORY, William H[elmsley]. . . . Report on the United States and Mexican Boundary Survey, made under the direction of the Secretary of the Interior. Washington, A. O. P. Nicholson, 1857–

59. 2 v. in 3, illus. 350 pl. maps, tab. charts, sect. diagr. 4°. (In U. S. 34th Cong., 1st sess., Sen. Ex. Doc. v. 20, no. 108, 3 parts) Serials no. 832, 833, 834.

v. 1, 1857, 16 + 258 + 8 + 174 p.
v. 2, 1858, 270 + 78 p.
v. 3, 1859, 62 + 33 + 35 + 85 p.

(2) House ed., Serials no. 861, 862, 863.

————. Same . . . Washington, Cornelius Wendell, printer, 1857–59. 2 v. in 3, illus. 350 pl. maps, tab., charts, sect., diagr. (In U. S. 34th Cong., 1 st sess., H. Ex. Doc. v. 14, no. 135, 3 parts) Serials, no. 861, 862, 863.

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v. 1, pt. 1, Serial no. 832 or 861, 1857.

EMORY, W. H. Narrative of the expedition. . . . Wash. 1857. 16 + 258 p. illus. 80 pl. maps. tab. diagr.

CONTENTS:

pref. p. 1– 6 Document.
pref. p. 7–11 Contents.
pref. p. 13– 6 Prefatory remarks.
p. 1– 22, ch. 1 EMORY, W. H. Personal account . . .
p. 23– 5, ch. 2 ————. Personal account (cont.) . . .
p. 26– 38, ————. Journal of the joint commission.
p. 39– 52, ch. 3 ————. General description of the country.
p. 53– 73, ch, 4 ————. Lower Rio Bravo.
p. 74– 92, ch. 5 MICHLER, N. From mouth of Devil's River to El Paso del Norte. p. 74–80.
p. 80–4 CHANDLER, M. T. W. San Vicente to Presidio del Norte.
EMORY, W. H. Report. p. 85–92.
p. 93–100, ch. 6 ————. Sketch of territory acquired by treaty of Dec. 30, 1853.
p. 101– 25, ch. 7 MICHLER, N. M. Report . . . from 111th meridian of longitude to Pacific Ocean.
p. 125– 30 PARRY, C. C. Reconnaissance to the mouth of the Gila River, from San Diego, California, Sept. 11, to Dec. 10, 1849.

p. 130– 36 EMORY, W. H. Report resumed . . .
p. 137–245, ch. 8 ————. Astronomical and geodetic work.
p. 246– 58, ch. 9 CHANDLER, M. T. W. Meteorology.

v. 1, pt. 2, Geological Reports. 8 + 174 p.

CONTENTS:

p. 1–27, ch. 1 PARRY, C. C. General geological features of the country. illus.
p. 24, note by J. W. BAILEY; p. 24–5, Thomas ANTISELL; p. 26–7, J. D. EASTER.
p. 28–48, ch. 2 SCHOTT, Arthur. Substance of the sketch of the geology of the lower Rio Bravo del Norte. illus.
p. 49–61, ch. 3 PARRY, C. C. Geological features of the Rio Grande Valley from El Paso to the mouth of the Pecos River. illus.
p. 62–77, ch. 4 SCHOTT, Arthur. Geological observations on the country along the boundary line lying between the 111th degree of longitude and the initial point on the Rio Colorado. illus.
p. 78–99, ch. 5 SCHOTT, Arthur, and EMORY, W. H. Physical and geological description of the country from the initial point on the Pacific to the junction of the Gila and Colorado. illus.
p. 101–40 HALL, James. . . . Geology and palaeontology of the bounday . . .
Collections made by Parry, presented in 1853.
p. 141–74 CONRAD, T. A. Descriptions of Cretaceous and Tertiary fossils. 21 pl. [91 fig.]

v. 2, 1859, Serial no. 833 or 862.

pt. 1 Botany. 270 + 78 p.

CONTENTS:

p. 7– 26 PARRY, C. C. Introduction to the botany of the boundary survey.
p. 27–270 TORREY, John. . . . Botany of the Boundary. 61 pl. [346 fig.]
p. 229–32 DEWEY, Chester. Genus Carex.
p. 233–36 EATON, D. C. Equisitaceae.
p. 237–59 Index.
78 p. ENGELMANN, George. . . . Cactaceae of the Boundary. 78 p. 76 pl. [494 fig.]
Repr. in his PAPERS; ed. by Trelease. 1887. p. 176–220.

[v. 3] or v. 2, pt. 2, Serial no. 834 or 863.

Zoological Report. 62 + 33 + 35 + 85 + 2 p. 128 pl. [724 fig.]

See also PACIFIC RR. SURV. (1853), v. 8–10.

CONTENTS:

(1) Mammals

BAIRD, S. F. . . . Mammals of the Boundary . . . with notes by the naturalists of the Survey . . . 62 p. 27 pl. [62 fig.]

Notes by C. B. R. KENNERLY, Arthur SCHOTT, Dr. BERLANDIER, and J. H. CLARK.

(2) Birds

————. . . . Birds of the boundary . . . with notes by the naturalists of the Survey . . . 33 p. 25 pl. [43 fig.]

Notes by Lt. D. N. COUCH, KENNERLY & CLARK.

(3) Reptiles

————. . . . Reptiles of the . . . Boundary . . . with notes by the naturalists of the survey . . . 35 p. 41 pl. [291 fig.]

Notes by Charles GIRARD, KENNICOTT, and others.

(4) Ichthyology

GIRARD, Charles. Ichthyology of the Boundary . . . 85 + 2 p. 41 pl. [418 fig.]

Papers in Society Transactions

1850 GRAY, Asa. Plantae Wrightianae Texano-Neo-Mexicanae: an account of a collection of plants made by Charles Wright in an expedition from Texas to El Paso, New Mexico in the summer and autumn of 1849 . . . part 1 & 2.

Acc. by Smith. Inst. (1846), Mar. 1850 & Oct. 1852. In its Contributions to Knowledge. v. 3, 146 p. 10 pl. Mar. 1852; & v. 5, art. 6, 119 p. 4 pl. Feb. 1853.

1851 EMORY, W. H. Notes on the survey of the boundary line between the United States and Mexico.

Rd before Amer. Assoc. Adv. Sc. (1848), May 8, 1851. In its Proc. v. 5, p. 94–104.

1852 BAIRD, S. F., and GIRARD, Charles. Characteristics of some new Reptiles in the Museum of the Smithsonian . . .

Rd before Phila. Acad. Nat. Sc. (1812), Apr. 20, 1852. In its Proc. v. 6, p. 68–70, 125–29, 173.

————. Species collected by John H. Clark and Arthur Schott, on the United States and Mexican Boundary Survey, under Major W. H. Emory, and received too late for insertion in their proper places.

Acc. by Smith. Inst. (1846), Nov. 1852. In its Misc. Coll. v. 2, art. 5, p. 156–61. Jan. 1853.

ENGELMANN, George. Notes on the Cereus giganteus of southeastern California, and some other Californian Cactaceae.

In Amer. J. Sc. (1818), v. 64 (ser. 2, v. 14), p. 335–39. Nov. 1852.

1853 LE CONTE, J. L. Descriptions of twenty new species of Coleoptera inhabiting the United States.

Rd before Phila. Acad. Nat. Sc. (1812), Jan. 11, 1853. In its Proc. v. 6, p. 226–35.

GRAY, Asa. Brief characters of some new genera and species of Nyctaginaceae, principally collected in Texas and New Mexico, by Charles Wright under the direction of Charles Graham . . .

In Amer. J. Sc. (1818), v. 65 (ser. 2, v. 15), p. 259–63, 319–24. Mar. 1853.

BAIRD, S. F., and GIRARD, Charles. Descriptions of new species of fishes collected by J. H. Clark, on the U. S. & Mexican Boundary Survey . . .

Rd before Phila. Acad. Nat. Sc. (1812), Aug. 16, 1853. In its Proc. v. 6, p. 387–90.

LE CONTE, J. L. Descriptions of some new Coleoptera from Texas chiefly from the collections of the Mexican Boundary Commission.

Rd before Phila. Acad. Nat. Sc. (1812), Dec. 6, 1853. In its Proc. v. 6, p. 439–48.

1854 BAIRD, S. F., and GIRARD, Charles. Descriptions of new species of fishes collected in Texas, New Mexico and Sonora by J. H. Clark of the U. S. & Mexican Boundary Survey and in Texas by Stewart Van Vliet, part 2.

Rd before Phila. Acad. Nat. Sc. (1812), Mar. 7, 1854. In its Proc. v. 7, p. 24–9.

LE CONTE, J. L. Notes of some coleopterous insects from the collection of the Mexican Boundary Commission.

Rd before Phila. Acad. Nat. Sc. (1812), May 16, 1854. In its Proc. v. 7, p. 79–85.

GRAY, Asa. Plantae Novae Thurberianae: The characters of some new genera and species of plants in a collection made by George Thurber, Esq., of the late Mexican Boundary Commission, chiefly in New Mexico and Sonora.

Com. to Amer. Acad. A. & Sc. (1780), Aug. 9, 1854.

In its Mem. n. s. v. 5, pt. 2, p. 297–328. 1855. Abstr. in its Proc. v. 3, p. 159–60.

LE CONTE, J. L. Description of new Coleoptera collected by T. H. Webb, M.D., in 1850–52, while Secretary to the U. S. & Mexican Boundary Commission.

Rd before Phila. Acad. Nat. Sc. (1812), Dec. 9, 1854. In its Proc. v. 7, p. 220–25.

1855 CONRAD, T. A. Descriptions of one Tertiary and eight new Cretaceous fossils from Texas in the collection of Major Emory.

Rd before Phila. Acad. Nat. Sc. (1812), Feb. 13, 1855. In its Proc. v. 7, p. 268–69.

BAIRD, S. F. Characteristics of some new species of Mammalia, collected by the U. S. & Mexican Boundary Survey under W. H. Emory: part 1.

Rd before Phila. Acad. Nat. Sc. (1812), Apr. 24, 1855. In its Proc. v. 7, p. 331–33.

1856 SCHOTT, Arthur. Geological observations on the Pluto-volcanic slope of the Sierra Madre along the azimuth boundary line through northwest Sonora, made under the direction of W. H. Emory.

Rd before Amer. Assoc. Adv. Sc. (1848), Aug. 1856. In its Proc. v. 10, p. 25–50.

EMORY, W. H. General description of the country adjacent to the boundary between the United States and Mexico.

Rd before Amer. Assoc. Adv. Sc. (1848), Aug. 1856. In its Proc. v. 10, p. 134–48.

1857 HALL, James. Observations upon the Cretaceous strata of the United States with reference to the relative position of the fossils collected by the Boundary Commission.

In Amer. J. Sc. (1818), v. 74 (ser. 2, v. 24), p. 72–86, illus. July, 1857.

EMORY, W. H. On a feature in the range of the western mountain system of North America.

Rd before Amer. Assoc. Adv. Sc. (1848), Aug. 1857. In its Proc. v. 11, p. 56–7.

1858 LE CONTE, J. L. Description of new species of Coleoptera collected by the United States and Mexican Boundary Commission under W. H. Emory.

Rd before Phila. Acad. Nat. Sc. (1812), Mar. 16, 1858. In its Proc. v. 10, p. 58–89.

GIRARD, Charles. Notes upon various new genera and new species of fishes in the Museum of the Smithsonian Institution and collected in connection with the United States and Mexican Boundary Survey . . .

Rd before Phila. Acad. Nat. Sc. (1812), July 20, 1858. In its Proc. v. 10, p. 167–71.

LE CONTE, J. L. Catalogue of the Coleoptera of the regions adjacent to the boundary line between the United States and Mexico.

Rd before Phila. Acad. Nat. Sc. (1812), Oct. 19, 1858. In its Jour. n.s. v. 4, p. 9–42, 1 pl. [19 fig.] Dec. 1858.

This Catalogue was not published in the Official Report of the Commission.

FOSTER & WHITNEY'S U. S. SURVEY OF THE LAKE SUPERIOR LAND DISTRICT (1849)

History

". . . At the subsequent session of Congress, an act was passed, entitled: 'An act to establish a new land district, and to provide for the sale of mineral lands in the state of Michigan' approved March 1, 1847.

"By the first section of this act, all of that portion of the Public Lands in the state of Michigan lying north of the boundaries of the Saginaw and Grand River land districts in the state, known as the north peninsula, with the islands in Lake Superior, Huron and Michigan, and in Green Bay, the straits of Michillimackinac, and the river St. Mary's, within the jurisdiction of said state, was included in one land district, to be called the Lake Superior Land District.

"The second section provides that the Secretary of the Treasury cause a geological examination and survey to be made and reported to the Commission of the General Land Office; that the President be authorized to cause such of said lands as may contain copper, lead, or other valuable ores to be exposed for sale . . . with a brief description of the lands to be offered. . . .

"In the spring of 1847, pursuant to the provision to the above recited act, the Secretary of the Treasury appointed Dr. Charles T. Jackson to execute the survey. After having spent two seasons in the field, (see JACKSON'S U. S. SURV. MINERAL LANDS OF MICHIGAN (1847)), in prosecuting this work, he resigned, and its completion was confided to Messrs J. W. Foster and J. D. Whitney, the results of whose observations will be found in the subjoined Report. . . ." FOSTER & WHITNEY. Report. pt. 1, 1850. p. 15–16.

They were assisted by Edward Desor, William Schlatter, as draughtsman, William D. Whitney as botanist, S. W. Hill, John and W. A. Burt, Charles Whittlesey. Reports were also made by James Hall and I. A. Lapham.

The Final Report was issued in two parts in 1850 and 1851 respectively. See Contents below. For a critical estimate of the geological aspects of the Reports, see also MERRILL (1), p. 417–22. (See Annot. Bib.). See also MERRILL. First 100 yrs Amer. Geol. 1924. p. 280–84.

For several papers published prior and subsequent to the Final Report, see below PAPERS IN SOCIETY TRANSACTIONS.

Reports

Part 1, Serial no. 578

1850 FOSTER, J[ohn] W[ells], and WHITNEY, J[osiah] D[wight]. Report on the geology and topography of a portion of the Lake Superior land district in the state of Michigan . . . part 1: Copper

lands. Washington, 1850. 224 p. illus. 12 pl. map. (In U. S. 31st Cong., 1st sess., H. Ex. Doc. v. 9, no. 69) Serial no. 578.

Rev. in Amer. J. Sc. v. 62 (ser. 2, v. 12), p. 222–39. Sept. 1851; & v. 65 (ser. 2, v. 15), p. 295–96. Mar. 1853.

CONTENTS:

p. 5– 17,			Introduction.
p. 18– 38,	ch.	1	Physical geography.
p. 39– 57,		2	Climate
p. 58– 98,		3	Geology of the copper region
p. 99–122,		4	Stratified sedimentary rocks
p. 123– 57,		5	Mines and mining
p. 158– 63,		6	Ancient mining
p. 164– 76,		7	Veins and veinstones
p. 177– 85,		8	Metallurgy
p. 186– 97		9	Drift of the Lake Superior land district
p. 198–218		10	Drift (cont.)
p. 219– 24			Glossary of mining and metallurgic terms

Part 2, Serial no. 609

1851 FOSTER, J[ohn] W[ells], and WHITNEY, J[osiah] D[wight]. . . . Report on the geology of the Lake Superior land district; part 2: The Iron Region, together with the general geology. Washington, Printed by A. Boyd Hamilton, 1851. 406 p. illus. 35 pl. 3 maps. (In U. S. 32d Cong., Spec. sess., Sen. Ex. Doc. v. 3, no. 4) Serial no. 609.

For rev. see above, pt. 1.

Extracts in Amer. J. Sc. (1818), v. 67, (ser. 2, v. 17), p. 11–33. Jan. 1854.

CONTENTS:

p. 1– 7,	ch.	1	FOSTER & WHITNEY. Classification and nomenclature of the rocks.
p. 8– 35,		2	———— Azoic system.
p. 36– 49,		3	———— Granite rocks of the Azoic period.
p. 50– 69,		4	———— Iron ores and associated rocks.
p. 70– 84,		5	———— Economic geology of the Azoic series.
p. 85– 94,		6	———— Composition of the Trappean rocks.
p. 95–109,		7	———— Mineralogy.
p. 110– 39,		8	———— Lower Silurian system—Potsdam and calciferous sandstone. Notes by James HALL.

Part 2: (cont.)

p. 140– 41,		9	HALL, James. Lower Silurian system (cont.)
p. 152– 66,		10	———— Upper Silurian and Devonian series.

p. 167– 89, 11 FOSTER & WHITNEY. Miscellaneous observations on the Palaeozoic series.
p. 167–71 LAPHAM, I. A. On the geology of the southeastern portion of the state of Wisconsin, being a part not surveyed by the U. S. geologists.
p. 174–83 WHITTLESEY, Charles. Remarks upon the section from the Falls of Wolf River, through Navarino to Lake Michigan.
p. 190–202, 12 ———— Chemistry and economic geology of the Palaeozoic series.
p. 203– 31, 13 HALL, James. Description of new or rare species of fossils, from the Palaeozoic series.
p. 232– 47, 14 DESOR, Edward. On the superficial deposits of this district.
p. 248– 55, 15 ———— Same (cont.)
Assisted by WHITTLESEY.
p. 256– 73, 16 ———— Same (cont.)
p. 274– 84, 17 FOSTER & WHITNEY. On the elevation of mountain chains.
p. 285–318, 18 HALL, James. Parallelism of the Palaeozoic deposits of the U. S. & Europe.
p. 319– 39, 19 WHITTLESEY, Charles. On the observed fluctuations of the surfaces of the lakes.
p. 340– 58, 20 ———— Magnetic variations, comparison of terrestrial & astronomical measurements.
p. 359– 81 21 WHITNEY, W. D. Botany.
p. 385–400 Appendix: notes.
p. 401– 6 Index.

Papers in Society Transactions

1849 WHITNEY, J. D. An account of labors during the past summer as U. S. Geologist in the survey of the government lands on Lake Superior.
Rd before Bost. Soc. Nat. Hist. (1830), Dec. 19, 1849. In its Proc. v. 3, p. 210–12.

1851 HALL, James. Some account of investigations . . . on Drummond's Island, and the north shore of Lake Huron and Lake Michigan, in connection with the geological survey under the direction of Messrs Foster & Whitney.
Rd before Amer. Acad. A. & Sc. (1780), Jan. 7, 1851. In its Proc. v. 2, p. 253–54.

FOSTER, J. W., and WHITNEY, J. D. On the age of the sandstone of Lake Superior, with a description of the phenomena of the association of igneous rocks.
Rd before Amer. Assoc. Adv. Sc. (1848), May 6, 1851. In its Proc. v. 5, p. 22–38.

———— On the Azoic system as developed in the Lake Superior Land District.
Rd before Amer. Assoc. Adv. Sc. (1848), May 5, 1851. In its Proc. v. 5, p. 4–7. 1851.

1852 DESOR, Edward. On the drift of Lake Superior.
In Amer. J. Sc. (1818), v. 63, (ser. 2, v. 13), p. 93–109. Jan. 1852.

1854 HALL, James. On the Silurian system of the Lake Superior region.
In Amer. J. Sc. (1818), v. 67 (ser. 2, v. 17), p. 181–94. Mar. 1854.

FOSTER, J. W. Catalogue of rocks, minerals, etc., collected by . . . and deposited in the Smithsonian Institution.
In Smith Inst. (1846), Ann. Rept. v. 9, p. 384–87. 1854.

1859 WHITNEY, J. D. Notice of new localities, and interesting varieties of minerals, in the Lake Superior regions; supplementary to the chapter on the subject in pt. 2, of the "Report of Foster & Whitney."
In Amer. J. Sc. (1818), v. 78 (ser. 2, v. 28), p. 8–20, illus. July, 1859. Repr. in Mining Mag. (1853), ser. 2, v. 1, p. 32–47. Nov. 1859.

1865 KIMBALL, J. P. On the iron ores of Marquette, Michigan.
In Amer. J. Sc. (1818), v. 89 (ser. 2, v. 39), p. 290–303. May, 1865.

GILLISS'S U. S. NAVAL ASTRONOMICAL EXPEDITION (1849)

History

By virtue of an Act passed August 3, 1848, it was proposed "to set on foot an expedition to the most southern available position on the western continent, for the purpose of making observations on the planet Venus. . . ."

Under the supervision of James Melville Gilliss, the United States Naval Astronomical Expedition left New York August 16, 1849, for a four years' cruise for the purpose of carrying out the provisions of the above act. His chief assistants were Lt. Archibald McRea, S. L. Phelps and E. R. Smith. Although there were no naturalists aboard the ships during the expedition, collections, botanical, zoological and ethnological were made and turned over to the SMITHSONIAN INSTITUTION (1846), q.v., for description. Reports were rendered by S. F. Baird, John Cassin, Charles Girard, J. L. Smith, Thomas Ewbank, A. A. Gould, Asa Gray, W. D. Brackenridge, Jeffries Wyman and T. A. Conrad.

Gilliss's "Final Report" appeared in 1855–56 in four volumes, parts 1–3, and 6. Parts 4–5, astronomical volumes were not pub-

lished until 1895 (see Reports (2), below). His Report was submitted July, 1854. For several papers appearing before the Final Report, see below PAPERS IN SOCIETY TRANSACTIONS.

Reports

(1), pt. 1–3, 6

1855 GILLISS, James M[elville]. . . . The U. S. Naval Astronomical Expedition to the Southern Hemisphere, during the years 1849, '50, '51, '52. . . . Washington, A. O. P. Nicholson, printer, 1855–56. 4 v. illus. pl. maps, port. tab. 4°. (In U. S. 33d Cong., 1st sess., H. Ex. Doc. v. 15, no. 121, pt. 1–3, 6) Serials no. 728, 729, 730, 733.

Rev. in Amer. J. Sc. v. 71 (ser. 2, v. 21), p. 147–48. Jan. 1856.

CONTENTS:

v. 1, Serial no. 728

GILLISS, J. M. Chile: its geography, climate, earthquakes, government, social condition, mineral and agricultural resources, commerce . . . 15 + 556 p.

p. 1– 43, ch. 1, Descriptive geography
p. 94–128, ch. 4, Earthquakes
p. 297–303, ch. 11, Mineral Springs
p. 402–511, Narrative

v. 2, Serial no. 729, On Argentine. 11 + 300 p. 42 pl.

CONTENTS:

p. 1– 82 McRAE, Archibald. Report of a journey across the Andes and Pampas of the Argentine Provinces.
p. 83–107 SMITH, J. L. . . . Report on the minerals and mineral waters of Chile. Appx. D.
p. 109– 50 EWBANK, Thomas. A description of the Indian antiquities brought from Chile and Peru by the Astronomical Expedition . . . illus. 3 pl. Appx. E.
p. 153– 71 BAIRD, S. F. Mammals. 1 pl. Appx. F. Mammalia in Chile, p. 163–71.
p. 172–206 CASSIN, John. Birds. Appx. F. 15 col. pl.
p. 207– 29 GIRARD, Charles. Reptiles. Appx. F. 7 pl.
p. 230– 53 ———— Fishes. Appx. F. 5 pl.
p. 254– 62 ———— Description of certain Crustacea brought home by the Expedition. . . Appx. F.
Note on Appx. F., by P. L. SCLATER, in Zool. Soc. London. Proc. 1856, p. 18, 19.
p. 263 GOULD, A. A. List of shells . . . Appx. F.
p. 265– 69 GRAY, Asa. List of the dried plants brought from Chile . . . Appx. G.

p. 270– 71 BRACKENRIDGE, W. D. List of living plants and seeds sent from Chile to the government green house. Appx. G.

p. 273– 81 WYMAN, Jeffries. Palaeontology: Description of a portion of the lower jaw and a tooth of the Mastodon Andium; also of a tooth and fragment of a femur of a Mastodon from Chile. Appx. H. 2 pl.

p. 282– 86 CONRAD, T. A. Remarks on the fossil shells collected by Lt. Gilliss, with descriptions of the species. Appx. H. 2 pl.

v. 3, Serial no. 730

GILLISS, J. M. Origin and operations of the Expedition. 6+42 p.

———— Observations to determine the Solar Parallax. 492 p.

v. 6, Serial no. 733

———— Magnetical and meteorological observations. 1856. 48+420 p.

(2), pt. 4–5, Serial no. 3424

1895 GILLISS, James M[elville]. A catalogue of 16,748 southern stars deduced by the U. S. Naval Observatory from the zone observations made at Santiago de Chile. . . Washington, 1895. 66+420 p. pl. (In U. S. 54th Cong., 1st sess., H. Doc. no. 219, appx. 1) Serial no. 3424.

This comprehends the unpublished v. 4–5, of the Expedition.

Papers in Society Transactions

1853 WYMAN, Jeffries. Lower jaw of a Mastodon from South America brought from Chili by Lt. Gilliss.

Rd before Amer. Acad. A. & Sc. (1780), Dec. 13, 1853. In its Proc. v. 3, p. 68.

1854 GIRARD, Charles. Abstract of a Report to Lt. J. M. Gilliss upon the fishes collected during the U. S. Naval Astronomical Expedition to Chile.

Rd before Phila. Acad. Nat. Sc. (1812), Nov. 21, 1854. In its Proc. v. 7, p. 197–99.

———— Abstract of a Report to Lt. J. M. Gilliss upon the reptiles collected during the U. S. Naval Astronomical Expedition to Chili.

Rd before Phila. Acad. Nat. Sc. (1812), Dec. 12, 1854. In its Proc. v. 7, p. 226–27.

1856 GILLISS, J. M. On the earthquake of Apr. 2, 1851, in Chile.

In Amer. J. Sc. (1818), v. 71 (ser. 2, v. 21), p. 388–99. May, 1856.

MARCY'S EXPEDITION FROM FORT SMITH TO SANTE FE (1849)

History

Capt. R. B. Marcy conducted an expedition between April and November, 1849, from Fort Smith, Arkansas to Santa Fe, New

Mexico. For route followed, see WARREN, p. 57. (see Annot. Bib. v. 1.) His Report was published in 1850 in the forms noted below.

Report

(1) Serial no. 562.

1850 MARCY, Randolph B[arnes]. Report . . . of the route from Fort Smith to Santa Fe. . . . Washington, 1850. (In U. S. 31st Cong., 1st sess., Sen. Ex. Doc., v. 14, no. 64, p. 169–233) Serial no. 562.

(2) Serial no. 577.

————. Same. . . . Washington, 1850. (In U. S. 31st Cong., 1st sess., H. Ex. Doc. v. 8, no. 45, p. 26–89) Serial no. 577.

POPE'S EXPLORATION OF MINNESOTA (1849)

History

On May 16, 1849, Lt. John Pope left St. Louis for an exploration of the valley of the Red River of the North in the state of Minnesota. His party returned October 5, of the same year. His Report was published in 1850. It contains some geological observations, but nothing on the fauna or flora of the region as these had been previously described in the reports of NICOLLET'S EXPLOR. UPPER MISSISSIPPI (1836), q.v., and LONG'S EXPED. TO THE ST. PETER'S (1823), q.v.

Report

1850 POPE, John. . . . Report of an exploration of the territory of Minnesota. Wash. 1850. 56 p. map. (In U. S. 31st Cong., 1st sess., Sen. Ex. Doc. v. 10, no. 42) Serial no. 558.

RECONNAISSANCES OF ROUTES FROM SAN ANTONIO TO EL PASO (1849)

History

During 1849 and 1850 a series of reconnaissances for the determination of routes from San Antonio to El Paso, Texas, were carried out by Capt. J. E. Johnston, Lt. W. F. Smith, F. T. Bryan, N. H. Michler., Capt. S. G. French, and Lt. W. H. C. Whitney.

The various reports were published in 1850. For details of routes followed, see WARREN, p. 60–2, (see Annot. Bib. v. 1).

Very little of importance in natural history was accomplished by this group of reconnaissances.

Reports

1850 ANDERSON, J. S., and others. . . . Reports of the Secretary of War with reconnaissances of routes from San Antonio to El Paso, by Brevet Col. J. E. Johnston, Lt. W. F. Smith, Lt. F. T. Bryan, Lt. N. H. Michler, and Capt. S. G. French; also the Report of Capt. R. B. Marcy's route from Fort Smith to Santa Fe; and the Report of Lt. J. H. Simpson of an expedition into the Navajo country; and the report of Lt. W. H. C. Whitney's Reconnaissances of the western frontier of Texas. Washington, 1850. 250 p. 75 pl. maps. (In U. S. 31st Cong., 1st sess., Sen. Ex. Doc. v. 14, no. 64) Serial no. 562.

See also MARCY'S EXPED. FORT SMITH TO SANTA FE (1849)
See also SIMPSON'S SURV. ROUTE FORT SMITH TO SANTA FE & EXPED. TO NAVAJO COUNTRY (1849)

CONTENTS:

p. 4– 7, 13– 4	SMITH, W. F.	Report . . . May	25, 1849.
p. 7– 13, 29–40	MICHLER, N. H.	Report . . . July	31, 1849, and Jan. 28, 1850.
p. 14– 26	BRYAN, F. T.	Report . . . Dec.	1, 1849.
p. 26– 9	JOHNSTON, J. E.	Report . . . Dec.	28, 1849.
p. 40– 54	FRENCH, S. G.	Report . . . Jan.	28, 1850.
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p. 169–233	MARCY, R. B.	Report . . .	
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SIMPSON'S SURVEY OF A ROUTE FROM FORT SMITH TO SANTA FE; & A MILITARY RECONNAISSANCE FROM SANTA FE TO THE NAVAJO COUNTRY (1849)

History

In 1849, Lt. J. H. Simpson, assisted by R. M. and E. H. Kern, and J. F. Hammond, who made natural history collections, made a survey of the route lying between Fort Smith, Arkansas and

Santa Fe, New Mexico, and from Santa Fe, conducted a military reconnaissance into the Navajo country in northwest New Mexico. His Reports were rendered in 1850. For details of routes followed, see also WARREN, p. 56–7, (see Annot. Bib. v. 1).

Bibliography

1852 SIMPSON, J. H. Annual address . . . on the main incidents connected with an expedition into the Navajo country made in 1849. . . . (In Minn. Hist. Soc. Annals, 1852. p. 5–19)

Reports

A. Fort Smith to Santa Fe.

(1) House ed., Serial no. 577.

1850 SIMPSON, J[ames] H[ervey]. Report of exploration and survey of route from Fort Smith, Arkansas, to Santa Fe, New Mexico, made in 1849. Washington, 1850. (In U. S. 31st Cong., 1st sess., H. Ex. Doc. v. 8, no. 45, p. 1–25, 2 pl. map) Serial no. 577.

Report rendered Aug. 13, 1849.

(2) Senate ed., Serial no. 554.

————. Same . . . Washington, 1850. (In U. S. 31st Cong., 1st sess., Sen. Ex. Doc. v. 6, no. 12. 25 p.) Serial no. 554.

B. Santa Fe to Navajo Country.

1850 ————. Journal of a military reconnaissance from Santa Fe, New Mexico to the Navajo Country. Washington, 1850. (In U. S. 31st Cong., 1st sess., Sen. Ex. Doc. v. 14, no. 64, p. 55–168) Serial no. 562.

p. 146–48 Schedule of minerals.

STANSBURY'S EXPLORATION OF THE SALT LAKE VALLEY (1849)

History

Early in 1849, Capt. Howard Stansbury, assisted by Lt. J. W. Gunnison, was ordered on an expedition the object of which was a survey of the Great Salt Lake and an exploration of its Valley. The expedition set out in 1849 and returned in December, 1850. The start was from Fort Leavenworth in May, 1849.

There was no regular naturalist attached to the expedition, but the large collections were submitted to Messrs Baird, Torrey, Hall, L. D. Gale, S. S. Haldeman, Girard, and T. R. Peale.

Baird, in his preface to the Zoology of the Report, says: "Called upon to start almost at a day's notice, they found it utterly impracticable to obtain the proper preservative materials, apparatus and other necessary outfit for making collections, in the limited time allotted to them. Nevertheless, it will not be a matter of surprise to those who are acquainted with the gentlemen concerned to learn how much was actually accomplished as will be shown by the published results. In fact, no government expedition since the days of Major Long's visit to the Missouri, has ever presented such important additions to natural history. . . ." BAIRD, S. F. Appx. C (Report), p. 307.

The Expedition spent the winter of 1849–50 amongst the Mormons. For details of the routes followed, see also WARREN, p. 57–9, (see Annot. Bib. v. 1).

Stansbury's Final Report was rendered March 10, 1852, and published the same year.

Bibliography

1896 COVILLE, F. V. Three editions of Stansbury's Report. (In Torrey Bot. Club. Bull. v. 23, p. 137–39. 1896).

Report

1852 STANSBURY, Howard. . . . Exploration and survey of the Valley of the Great Salt Lake of Utah, including a reconnoissance of a new route through the Rocky Mountains. Phila. Lippincott, Grambo & co., 1852. 487 p. 54 pl. 3 maps. (In U. S. 32d Cong., Spec. sess., Mar. 1851. Sen. Ex. Doc. v. 2, no. 3). Serial no. 608

Rev. in Amer. J. Sc. v. 65 (ser. 2, v. 15), p. 133–35. Jan. 1853. (See also p. 126–29).

Other editions according to Coville (see above), bear imprint: Wash. Robert Armstrong, 1852; & a third bears imprint date, 1855.

CONTENTS:

p. 13–267 STANSBURY, Howard. Report and narrative. ch. 1–9. Made Mar. 10, 1852.
p. 269–94 ————. Tables of distances. Appx. A.
p. 295–303 ————. Astronomy. Appx. B.
p. 307–8 BAIRD, S. F. Zoology of survey. Appx. C.
p. 309–13 ————. Mammals. Appx. C.
p. 314–35 ————. Birds. Appx. C.

p. 327–35 CASSIN, John. A list of the birds inhabiting America, west of the Mississippi, not described in Audubon's "Ornithology."

p. 336– 53 BAIRD, S. F., and GIRARD, Charles. Reptiles Appx. C. 5 pl.
p. 354– 65 GIRARD, Charles. A monographic essay on the genus Phrynosoma. Appx. C. 3 pl.
p. 366– 78 HALDEMAN, S. S. Insects. Appx. C. 2 pl.
p. 379 PEALE, T. R. Letter upon the larvae of insects found in the Great Salt Lake. Appx. C.
p. 381– 97 TORREY, John. Botany: catalogue of plants collected by the expedition. Appx. D. 9 pl.
p. 399–414 HALL, James. Letter containing observations on the geology and palaeontology of the country traversed by the expedition and notes upon some of the fossils collected on the route. Appx. E. 4 pl.
Rev. in Amer. J. Sc. v. 65, (ser. 2, v. 15), p. 126–29. Jan. 1853.
p. 415– 21 GALE, L. D. Chemical analyses. Appx. F.
p. 423– 78 STANSBURY, Howard. Meteorological observations. Appx. G.
p. 479– 86 Index.

U. S. SURVEYS IN CALIFORNIA AND OREGON (1849)

History

In 1849, Philip T. Tyson was requested by the War Department to make a survey of California with especial reference to its geology and topography. He rendered his Report Jan. 30, 1850, and it was published in the official government documents during the same year. A separate of the Report including those of the army officers noted below was issued in 1851.

Explorations were also carried on by Generals P. F. Smith and B. Riley; Lts. Theodore Talbot, J. F. Frazer, G. H. Derby, W. H. Warner, R. S. Williamson, E. O. Ord.

The object of Tyson's "Memoir" was "to present a brief sketch of the geological structure and industrial resources of parts of California, including those sections of the country which have recently attracted so much attention." Lt. Talbot's Report in MSS is deposited in MSS division of Library of Congress.

Reports

(1)

1850 CRAWFORD, George W. Report of the Secretary of War, communicating information in relation to the geology and topography

of California and Oregon . . . of part of the Sierra Nevada . . . Washington, 1850. 127 + 37 p. illus. 9 pl. 3 maps. (Serial no. 558.)

In two parts.

(2)

1851 TYSON, Philip T[homas]. Geology and industrial resources of California: to which is added, the official reports of Genls. Persifer F. Smith and B. Riley—including the reports of Lieuts. Talbot, Ord, Derby, and Williamson of their explorations in California and Oregon; and also of their examinations of routes for railroad communication eastward from those countries. Baltimore, Minifie & co., 1851. 34 + 127 + 37 p. 9 pl. 3 maps.

Rev. in North Amer. Rev. v. 75, p. 277–96. Oct. 1852.

CONTENTS: (1) & (2)

Part 1

p. 1– 74 TYSON, P. T. Report . . . on the geology and topography of California . . . 9 pl. maps.
p. 6–36 Geology; p. 36–43 Mineralogy; p. 43–6 Botany; p. 46–9 Zoology.

p. 75–108 SMITH, P. F. Report . . . Oct. 7, 1849.

p. 108– 16 TALBOT, Theodore. Report . . . Oct. 5, 1849.

p. 116– 17 FRAZER, J. F. Report on minerals forwarded by General Smith.

p. 118– 19 RILEY, Bennet. Report.

p. 119– 27 ORD, E. O. C. Report to Gen. Riley . . . Oct. 31, 1849.

Part 2

p. 1– 16 DERBY, G. H. Topographical memoir accompanying maps of Sacramento Valley . . . Sept. 5, 1849.

p. 16– 37 WILLIAMSON, R. S., and WARNER, W. H. Report.

U. S. SURVEY OF THE CREEK BOUNDARY LINE (1849)

History

Lt. Lorenzo Sitgreaves was ordered to make a survey of the boundary lines of the Creek Country in Kansas in 1849. Work was begun June 19, 1849. On April 18, 1850, Sitgreaves was relieved by Lt. J. C. Woodruff, who completed the survey.

S. W. Woodhouse accompanied the expedition in the capacities of physician and naturalist. Sitgreaves's Report was submitted Feb. 14, 1850; and that of Woodruff, Sept. 1, 1851. The official report was not published, however, until 1858. Woodhouse made and described the natural history collections.

Report

1858 SITGREAVES, L[orenzo], and WOODRUFF, J.=C. [Reports of the survey of the northern and western boundary line of the Creek country, Kansas, during the years 1849 and 1850]. Washington, 1858. 32 p. map. (In U. S. 35th Cong., 1st sess., H. Ex. Doc. v. 12, no. 104). Serial no 958.

CONTENTS:

p. 1– 5 SITGREAVES, L. Report. Feb. 14, 1850.

p. 5–15 WOODHOUSE, S. W. A short account of the natural history of the country, with list of plants, birds, shells . . . Written Feb. 20, 1850.

p. 6–8, plants; p. 8–13, zoology; p. 13–15 Birds collected during the summer and fall of 1849 in Indian territory.

p. 15–24 WOODRUFF, J. C. Report. Sept. 1, 1851.

p. 25–32 WOODHOUSE, S. W. Report while under the command of Lieut. J. C. Woodruff. Written Jan. 6, 1851.

Papers in Society Transactions

1852 WOODHOUSE, S. W. Description of a new species of Ectopistes. Rd before Phila. Acad. Nat. Sc. (1812), June 1, 1852. In its Proc. v. 6, p. 104–5.

ANNUAL OF SCIENTIFIC DISCOVERY (1850)

History

The ANNUAL OF SCIENTIFIC DISCOVERY; or, Year-book in science and art, was begun in 1850 under the editorship of David Ames Wells, assisted by George Bliss. Bliss's name does not appear on the title-page after the first volume. It gave annually digests of the scientific articles appearing in the various periodicals of the day, and each volume, after the first contained an essay on the progress of science during the year just elapsed. It was the earliest successful attempt at maintaining a kind of "Science Abstracts." The publication appeared through 1871.

Below will be found the contents of the various volumes as they relate to natural history.

1850 (THE) ANNUAL OF SCIENTIFIC DISCOVERY; or, Year-book of facts in science and art, exhibiting the most important discoveries and improvements in mechanics, astronomy, mineralogy,

useful arts, meteorology, geology, natural philosophy, zoology, geography, chemistry, botany, antiquities; together with a list of recent scientific publications; a classified list of patents; obituaries of eminent scientific men; an index of important papers in scientific journals, reports, etc., edited by David A. Wells and George Bliss, Jr. Bost. Gould & Kendall & Lincoln, 1850–71. 21 v. (for 1850–70).

Papers on Natural History

1850		**v. 1, for 1850**
	p. 222– 88	Geology, palaeontology & mineralogy.
	p. 289–306	Botany.
	p. 307– 34	Zoology.
1851		**v. 2, for 1851**
	pref. p. 5–19	Progress of science.
	p. 250–316	Geology.
	p. 317– 27	Botany.
	p. 328– 63	Zoology.
1852		**v. 3, for 1852**
	pref. p. 5–24	Progress of science.
	p. 243–322	Geology.
	p. 323– 38	Botany.
	p. 339– 72	Zoology.
1853		**v. 4, for 1853**
	p. 5– 29	Progress of science.
	p. 263–317	Geology.
	p. 318– 26	Botany.
	p. 327– 57	Zoology.
1854		**v. 5, for 1854**
	p. 3– 24	Progress of science.
	p. 289–332	Geology.
	p. 333– 41	Botany.
	p. 342– 57	Zoology.
1855		**v. 6, for 1855**
	p. 4– 24	Progress of science.
	p. 298–336	Geology.
	p. 337– 49	Botany.
	p. 350– 73	Zoology.
1856		**v. 7, for 1856**
	p. 3– 22	Progress of science.
	p. 280–332	Geology.
	p. 333– 39	Botany.
	p. 340– 63	Zoology.

1857		**v. 8, for 1857**
	p. 3–18 (pref.)	Progress of science.
	p. 297–344	Geology.
	p. 345– 55	Botany.
	p. 356– 70	Zoology.
1858		**v. 9, for 1858**
	pref. p. 3–20	Progress of science.
	p. 350– 80	Geology.
	p. 381– 85	Botany.
	p. 386– 93	Zoology.
1859		**v. 10, for 1859**
	pref. p. 3–18	Progress of science.
	p. 294–342	Geology.
	p. 343– 54	Botany.
	p. 355– 82	Zoology.
1860		**v. 11, for 1860**
	pref. p. 3–20	Progress of science.
	p. 284–366	Geology.
	p. 367– 78	Botany.
	p. 379–408	Zoology.
1861		**v. 12, for 1861**
	pref. p. 3–18	Progress of science.
	p. 274–344	Geology.
	p. 345– 52	Botany.
	p. 353– 80	Zoology.
1862		**v. 13, for 1862**
	pref. p. 3–18	Progress of science.
	p. 250–309	Geology.
	p. 310– 19	Botany.
	p. 320– 67	Zoology.
1863		**v. 14, for 1863**
	pref. p. 3–16	Progress of science.
	p. 244– 87	Geology.
	p. 288– 93	Botany.
	p. 294–309	Zoology.
1864		**v. 15, for 1864**
	pref. p. 3–14	Progress of science.
	p. 209– 52	Geology.
	p. 253–303	Zoology.
	p. 304– 15	Botany.
1865		**v. 16, for 1865**
	pref. p. 5–14	Progress of science.
	p. 268–312	Geology.
	p. 313– 15	Botany.
	p. 316– 31.	Zoology.

DERBY'S RECONNAISSANCE OF THE GULF OF CALIFORNIA AND THE COLORADO RIVER & EXPEDITION TO TULARE LAKE (1850)

History

In 1850, under the direction of George H. Derby, an expedition to Tulare Lake and vicinity in California was made. Derby's Report was rendered in July, 1850, and published in 1852.

In November, 1850, he was ordered "to attempt the entrance of the Colorado River from the Gulf of California and the ascent of the river as far as the post to be established near the junction of the Gila, with a view to establish that as a route of supply . . ." Orders were given October 12, and the expedition in the "Schooner Invincible," which was despatched for the purpose, was carried out between Nov. 1850 and March, 1851. Derby's Report was published in 1852.

Reports

A. Reconn. Gulf of California. Serial no. 620.

1852 DERBY, George H[oratio]. Report of the expedition of the United States transport "Invincible" (Capt. A. H. Wilcox) . . . to the Gulf of California and river Colorado during the months of November, December, January, February and March, 1850 and 1851. Washington, 1852. 28 p. illus. map. (In U. S. 32d Cong., 1st sess., Sen. Ex. Doc. v. 9, no. 81). Serial no. 620.

B. Expedition to Tulare Lake. Serial no. 621.

1852 DERBY, George H[oratio]. Report . . . of an examination of the country between the latitude of San Miguel and that of San Luis Obispo . . . Tulare Lake and vicinity. Washington, 1852. 17 p. map. (In U. S. 32d Cong., 1st sess., Sen. Ex. Doc. v. 10, no. 110). Serial no. 621.

MISSISSIPPI STATE GEOLOGICAL SOCIETY (1850)

History

According to the AMERICAN JOURNAL OF SCIENCE, v. 60 (ser. 2, v. 10), p. 133. July, 1850, an organization known as the Mississippi State Geological Society had just been formed for the purpose primarily of urging the establishment of a state geological survey.

After achieving its purpose, the Society appears to have disbanded. The first survey was carried out in 1850 under the supervision of Dr. John Millington. See MISSISSIPPI GEOL. SURV. (1850).

B. C. L. Wailes and John Millington appear to have been the most influential members of the Society during the few years of its precarious existence. It disbanded in 1854.

MISSISSIPPI GEOLOGICAL SURVEYS (1850)

History

"An Act of the Legislature entitled: 'An act to further endow the University of Mississippi' approved March 5, 1850, was the first authorization of a geologic survey of the state. Under this law the trustees of the University elected Dr. John Millington, at that time professor of natural sciences at that institution as the first state geologist, and B. L. C. Wailes as assistant state geologist, January 14, 1852.

This first state survey was not only a geologic and agricultural survey, but contemplated a complete biologic survey of the state as well. Dr. Millington was too old to do the active field work, and the prosecution of the survey fell principally upon Prof. Wailes. Much work of a reconnaissance character was done by Prof. Wailes in an effort to unfold the geologic structure of the state, large collections of specimens were made and a state museum was established. The fossils collected were chiefly from the Jackson and Vicksburg formations, and were determined by T. A. Conrad. When the Report was ready for publication in 1854 it embodied so largely the results of Prof. Wailes's work that Dr. Millington thought that to publish it under his own name would be an injustice to his co-worker. His recommendation that it be published in Wailes's name was adopted . . .

In 1854 Lewis Harper succeeded Wailes as state geologist and E. W. Hilgard was appointed assistant state geologist. During the next three years the work of the Survey was carried on by these men, chief attention being given to the economic aspects of the investigations. The results were embodied in a Report on the agriculture and geology of Mississippi in 1857.

In 1857 Hilgard succeeded Harper as state geologist. He was pre-eminently qualified for the work. Educated in Germany he had thorough and special training in chemistry and agricultural science, besides being an accomplished geologist. He studied the geologic structure of the state and the economic products and soils accurately and thoroughly. He made large and valuable collections of specimens, which are now in the cabinets of the State University.

As a result of his studies, Hilgard in 1860 published a most creditable report on the geology and agriculture of Mississippi. The Civil War broke out before the Reports were received from the St. Louis publisher and not until after the close of the war were they put into circulation.

During the Civil War, appropriations for the Survey stopped except the $1,200 salary of the state geologist, which, though small, was continued in appreciation of the valuable services which Dr. Hilgard had given the state.'' From HAYES, p. 82–3. (U. S. Geol. Surv. Bull no. 465).

See also MERRILL (1), p. 430, 440–41, 483–84. (See Annot. Bib.) for critical discussions of the various Reports given below. See also MERRILL, G. P. First 100 yrs. Amer. Geol. 1924. p. 297–98, 330–31, 367–68.

The Survey was largely the outgrowth of the activity of the MISSISSIPPI STATE GEOLOGICAL SOCIETY (1850), q.v.

Oscar M. Lieber was Millington's first assistant and received his appointment effective July 15, 1851. He resigned on January 14, 1852. A paper of his on the geology of the state will be found in the PAPER IN SCIENTIFIC JOURNAL, below.

According to MERRILL (see BIBLIOGRAPHY: 1920, below), the expenses of the Mississippi Surveys totalled about $17,445.

Bibliography

1901—HILGARD, E[ugene] W[oldemar]. A historical outline of the Geological and Agricultural Survey of the State of Mississippi. (In Amer. Geol. v. 27, no. 5, p. 284–311. May, 1901).

Bibliographical note—Official publications of the Surveys, p. 309–11.

Repr. from Mississippi Hist. Soc. Publications. v. 3, p. 207–34. 1900. (Bibliography, p. 232–34).

1920 MERRILL, George P[erkins], ed. Mississippi Geological Surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 255–74, port.)

History of state surveys to 1885.

Reports

1854 WAILES, B[enjamin] L[eonard] C[ovington]. Report on the agriculture and geology of Mississippi, embracing a sketch of the social and natural history of the state. Jackson, Miss., E. Barksdale, printer, 1854. XX+17–371 p. illus. pl. sect.

2000 copies pub., preface dated Mar. 1, 1854. $2500 appropriated to Wailes.

CONTENTS:

Introduction. p. XIII–XX.

I. Historical notice. p. 17–116.

II. Land titles. p. 117–25.

III. Agriculture. p. 127–205.

IV. Geology. p. 207–86, 290–96.

Palaeontology. p. 269–86.

CONRAD, T. A. Fossils of the Vicksburg Eocene beds. p. 287–88, pl. 14–17, [38 fig.]

————. Fossil Testacea of the Tertiary green-sand marl bed of Jackson, Miss. p. 289.

V. Meteorology. p. 297–308.

VI. Fauna. p. 309–40.

Assisted by Agassiz & Baird.

AGASSIZ, Louis. Catalogue of the fishes of Mississippi. p. 332–37.

VII. Flora. p. 341–56.

Appx. A. The President of the Board of Trustees of the State University to the Governor of the state. Jan. 12, 1854. p. 357.

B. Message of Gov. McRae to the Legislature, Jan. 17, 1854. p. 357–59.

C. Report of the Committee of the Senate, Jan. 20, 1854. p. 359–60.

D. An act to authorize the printing of the First Annual Report . . . p. 360–62.

E. Extracts from Dr. Millington's Report to the Governor, Feb. 1, 1854. p. 363–64.

1857 HARPER, Lewis. Preliminary report on the geology and agriculture of the state of Mississippi . . . Jackson, Miss., E. Barksdale, printer, 1857. 352 p. 52 illus. map.

Rept. made March, 1857.

Rev. in Amer. J. Sc. ser. 2, v. 26 p. 131–32. July, 1858.

CONTENTS:

Introduction. p. 15–27.
Geological geography of the state of Mississippi. p. 29–39.
Lithological and palaeontological description of the Carboniferous formation. p. 41–71.
Geological and palaeontological description of the Cretaceous formation. p. 72–131.
Forest growth. p. 130–31.
Lithological and palaeontological description of the Tertiary formations. p. 132–250, illus.
Quaternary formations. p. 251–61, map.
Notes and additions. p. 263–320.
Appendix. On the marls and green sands of the state of Mississippi and their use as a manure. p. 321–27.
Glossary. p. 341–50.

1858 HILGARD, E[ugene] W[oldemar]. Report upon the condition of the Geological and Agricultural Survey of the State of Mississippi. Jackson, Miss., Steam Power Press, 1858. 22 p.

1860 ————. Report on the geology and agriculture of the state of Mississippi. Jackson, Miss., E. Barksdale, printer, 1860. 24+391 p.

Written Aug. & Sept. 1860.

CONTENTS:

Pt. 1 Geological report. p. 1–201.
Orange sand formation. p. 5–46.
Carboniferous formation. p. 47–60.
Cretaceous formation. p. 47–106.
Tertiary formations. p. 107–93.
Quaternary formations. p. 194–201.
Pt. 2 Agricultural report. p. 202–388.
Appx. B. SPILLMAN, William. Catalogue of Tombigbee green sand fossils. p. 389.
MOORE, W. D. Exploration of the hydraulic limestone district of Tishomingo County. p. 390–91. Written July 20, 1860.

1862 ————. Report to Gov. John Peters on the resources of the state of Mississippi for the manufacture of salt. Oxford, Miss. June 9, 1862. 4 p. (In Newspapers).

Paper in Scientific Journal

1854 LIEBER, O. M. A sketch of the geology of the state of Mississippi. In Mining Mag. (1853), v. 3, no. 1, p. 41–7, map. July, 1854.

HERNDON & GIBBON'S EXPLORATIONS OF THE VALLEY OF THE AMAZON (1851)

History

On Feb. 15, 1851, the Secretary of the Navy issued instructions for an exploration of the valley of the Amazon River, to Lts. W. L. Herndon and Lardner Gibbon:

"The government desires to be put in possession of certain information relating to the valley of the River Amazon, in which term is included the entire basin, or water-shed, drained by that river and its tributaries . . .

. . . You will make such geographical and scientific observations by the way as may be consistent with the main object of the expedition, always bearing in mind that these are merely incidental . . .

It is desirable that you should bring home with you, specimens or samples of the various articles of produce from the Amazon River, together with such seed or plants as might probably be introduced into this country with advantage . . ."

The explorations of the expedition were carried on during 1851 and 1852. Some collections in natural history were made and observations on the ethnology and physical geography of the regions traversed were given in the Final Report.

Herndon's Report was submitted on January 25, 1853; and Gibbon's on January 25, 1854. The Report was published in two volumes in 1853 and 1854 in both a Senate and a House edition. L. W. Bailey described the microscopical organisms collected.

Report

(1) Senate edition, Serials no. 663 & 664

1853 HERNDON, W[illiam] L[ewis], and GIBBON, Lardner. . . . Exploration of the valley of the Amazon made under the direction of the Navy Department by . . . Washington, 1853–54. 2 v. illus. pl. maps, tab. 4°. (In U. S. 32d Cong., 2d sess., Sen. Ex. Doc. v. 6, no. 36, 2 pts.) Serials no. 663 & 664.

v. 1, Herndon's Report. 414 + 4 p. 16 pl.
v. 2, Gibbon's Report. 11 + 339 p. illus.

(2) House edition, Serials no. 678 & 722

a) Herndon's Report. (In U. S. 32 d Cong., 2 d sess., H. Ex. Doc. v. 5, no. 43.) Serial no. 678.

b) Gibbon's Report. (In U. S. 33 d Cong., 1 st sess., H. Ex. Doc. v. 9, no. 53.) Serial no. 722.

Papers in Society Transactions

1861 Bailey, L. W. Notes on new species of microscopical organisms chiefly from the Para River, South America.
Rd before Bost. Soc. Nat. Hist. (1830), April 3, 1861. In its Jour. v. 7, p. 329–52. Abstr. in its Proc. v. 8, p. 162–69.

ILLINOIS GEOLOGICAL SURVEY (1851)

History

"The first geological survey of Illinois was created by the General Assembly in 1851. It was placed in charge of a geologist appointed by the governor, auditor and treasurer. The duties of the geologist were, briefly, 'to ascertain the order, successive arrangement, relative position, dip and comparative magnitude of the several strata or geological formations in the state, and to search for and examine all the beds and deposits of ores, coals, clays, marls, rocks, and such other mineral substances as may present themselves' . . .

"He was also required to transmit an annual report . . . Provision was also made for the collection of a cabinet of specimens found within the state, from which duplicates were to be distributed to the larger institutions of learning. The act provided for a continuous annual appropriation of $3,000. This, however, was increased by the next legislature to $5,000 for general expenses and $500 per annum for topographic maps of the counties.

"Dr. Joseph Granville Norwood was in charge of the Survey for the first six years after its organization. He began work with an examination of the bluffs of the Ohio River in southern Illinois. In six years about $27,000 had been expended, but no Report had been submitted. An investigating committee found that the money had been wisely spent, and recommended an additional appropriation for the completion of the Survey. Norwood's only publication bearing the date of 1857 . . . was devoted to the discussion of Illinois coals. It was accompanied by a one-page colored map of the state.

"In 1858 Norwood turned over to his successor, Dr. Amos Henry Worthen, the field notes of several assistants and a Report on the lead mines of Hardin County. The first Report submitted by Worthen was devoted to two geologic sections, one across the

Silurian and Devonian formations of southern Illinois and the other following the Mississippi River from end to end of the state. This Report however and the others submitted previous to 1865 were never published, owing to the opposition of certain members of the legislature. Indeed, an attempt was made to repeal the law under which the survey was organized, and only the interference of the executive veto saved the organization.

"Worthen re-organized the survey and obtained the services of a number of specialists. J. D. Whitney was authorized to investigate the lead and zinc region of northwestern Illinois and Prof. Leo Lesquereux was engaged 'to investigate the coal measures and the carboniferous plants.' The assistance of F. B. Meek in the investigation of invertebrate fossils and of J. S. Newberry in the department of vertebrate paleontology was also secured . . . and the following other scientists shared the work of the first survey: Henry Engelmann, H. A. Prout, Bannister, Freeman, Scudder, Bradley, Green, Shaw, Broadhead, Cox, St. John, Miller, Wachsmuth, Barris, Springer, Ulrich and Cope . . ." From HAYES, p. 42–4. (U. S. Geol. Surv. Bull. no. 465).

With the exception of Engelmann, Prout, Cope, and J. V. Z. Blaney, who was the chemist of the Survey, few of the others did work before 1865 or 1866, in connection with the Survey.

For a critical discussion of the publications of the Geological Survey of Illinois, see also MERRILL, (1) p. 432–33, and 496–98. (See Annot. Bib.). For the documents in the Illinois State Series of Documents, see HASSE, (2), pt. 8, July, 1909, p. 300–6. Those relating to the Survey before 1865 are given in the BIBLIOGRAPHY below. See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 300–1, 380–83.

A large number of preliminary papers on the Survey were published before 1865, which will be found below under PAPERS IN SOCIETY TRANSACTIONS AND JOURNALS.

Only the first two volumes published in 1866 of the Worthen Survey are analysed below. For the others, see WHITE, 1890, in BIBLIOGRAPHY below.

According to Merrill (see below BIBLIOGRAPHY: 1920), about $105,000 was expended on the Survey prior to 1866.

Bibliography

1843 ILLINOIS. COMMITTEE. Report of select committee on plan for obtaining mineralogical and geological specimens for the state;

also appropriate queries to be propounded to the people in reference thereto. (In H. Rept. 13th Gen. Assem. 1st sess. 1842–43. p. 217–24).

1844 ILLINOIS. SECRETARY OF STATE. Report from . . . re geological specimens . . . (In H. Rept. 14th Gen. Assem., 1st sess. 1844–45. p. 229).

1851 AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. Memorial to the legislature of Illinois from the . . . urging the importance of establishing or resuming the Geological Survey. (In ILLINOIS. H. Rept. 17th Gen. Assem. 1851. p. 451–54).

See also AMER. ASSOC. ADV. SC. (1848).

ILLINOIS. STATE LEGISLATURE. Copy of the law passed February 17, 1851, authorizing a geological survey of the state, with amendment to same. (In Geol. Surv. Illinois. v. 1, pref. p. 9–10).

1857 ILLINOIS. COMMITTEE. Report of the committee on the Geological Survey of the State, with reports of the state geologist and state topographer and a statement comparing the appropriation made for the Geological Survey of Illinois, with sums appropriated for similar purposes by other states. (In Repts. Gen. Assem. 1857. p. 413–22).

1863 ILLINOIS. Veto of bill to improve state library and pay for services rendered in the geological survey of the state. (In H. Jour. 23d Gen. Assem. Reg. sess. 1863. p. 12–3).

1865 ————. Recommendation for provision for publication of the results of the Geological Survey. (In Governor's Message. 1865. p. 15).

1866 GEOLOGICAL SURVEY OF ILLINOIS, A. H. Worthen, Directo. . . . Reports . . . Springfield and Chicago, 1866–90. 9 v. in 8, illus. pl. maps. 4°

v. 1 & 2 are collated and analysed below under Reports (q.v.) See also LINDAHL, below. v. 1 & 2, pub. 1866; v. 3, 1868; v. 4, 1870; v. 5, 1873; v. 6, 1875; v. 7, 1883; v. 8, July, 1890 (& separate atlas). Index in v. 8 for all volumes.

1890 LINDAHL, Josua. General index to Geological Survey of Illinois, v. 1–8. (In Geol. Surv. Illinois. v. 8, appx. p. 39–151).

WHITE, C[harles] A[biathar] A sketch of the scientific work of Prof. A. H. Worthen. (In Geol. Surv. Illinois. v. 8, appx. p. 18–37).

Gives contents of the 8 volumes of the Survey.

1920 MERRILL, George P[erkins], ed. Illinois Geological Surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 64–72, port.).

History of surveys to 1885.

Reports

1853 NORWOOD, J[oseph] G[ranville]. Report of progress of the state geological survey, communicated to the Illinois legislature, at their session of 1853. Springfield, Lanphier & Walker, printers, 1853. 13 p.

Made Feb. 5, 1853. Also in the State Documents. Repts. 18th Gen. Assem. v. 2, p. 83–93.

1857 ————. Abstract of a Report on Illinois coal, with descriptions and analyses, and a general notice of the coal fields. Chicago, 1857. 93+5 p. 2 pl. maps.

Rev. in Amer. J. Sc. ser. 2, v. 25, p. 286–87. Mar. 1858.

1866 WORTHEN, Amos Henry. . . . Geological Survey of Illinois. . . . v. 1—Geology. . . . Springfield, 1866. 16+504+3 p.

Report made Jan. 1865.

CONTENTS:

ch. 1 WORTHEN, A. H. Physical features, general principles, and surface geology. p. 1–39.

2 ————. Stratigraphical geology, Tertiary deposits and coal measures. p. 40–76.

3 ————, Sub-Carboniferous limestone [series]. p. 77–118.

4 ————. Devonian and Silurian systems. p. 119–52.

5 WHITNEY, J. D. Geology of the lead region. p. 153–207.
Written Oct. 1, 1860. Assisted by J. P. KIMBALL.

6 LESQUEREUX, Leo. Report on the coal fields of Illinois. p. 208–37. Rept. rendered Nov. 28, 1860.

7 ————. On the origin and formation of prairies. p. 208–54.

8 BLANEY, J. V. Z. Chemical report. p. 255–77.

9 WORTHEN, A. H. Geology of Randolph Co. p. 278–96.

10 ————. St. Clair Co. p. 297–312.

11 ————. Madison Co. p. 313–26.

12 ————. Hancock Co. p. 327–49.

13 WORTHEN, A. H., and ENGELMANN, Henry. Geology of Hardin Co. p. 350–66.
NORWOOD, J. G. On Rosiclare lead mines. p. 366–75.

14 ENGELMANN, Henry. Johnson Co. p. 376–409.

15 ————. Pulaski Co. p. 410–27.

16 ————. Geology of Massac Co., and that part of Pope Co., south of Big Bay River. p. 428–55.

17 ————. Pope Co., north of Big Bay River. p. 456–95, 8 pl.

Glossary of geological and other scientific terms used in this volume. p. 497–504.

Index. 3 p.

1866 ————. . . . Geological Survey of Illinois. . . . v. 2: Palaeontology. . . . Springfield, 1866. [21]+470+[108] p. 50 pl. [372 fig.] 4°.

CONTENTS:

MEEK, F. B., and WORTHEN, A. H. Introduction. pref. 19 p.

————. List of fossils described. p. I-V.

NEWBERRY, J. S., and WORTHEN, A. H. Descriptions of new species of Vertebrates, mainly from the sub-Carboniferous coal measures of Illinois. sect. 1, p. 9–134, illus. 13 pl. [143 fig.]

Contain: WORTHEN, A. H. Remarks on the occurrence of fossil fishes in Illinois. p. 11–6.

COPE, E. D. Supplement to descriptions of Vertebrates . . . p. 135–41.

MEEK, F. B., and WORTHEN, A. H. Descriptions of Invertebrates from the Carboniferous system. p. 143–411, 19pl. [156 fig.]

PROUT, H. A. Supplement to descriptions of Invertebrates: descriptions of Polyzoa from the Palaeozoic rocks. p. 412–23.

LESQUEREUX, Leo. Report on the fossil plants of Illinois. p. 425–70, 18 pl. [73 fig.]

Rept. made in 1863.

Index. 6 p.

Papers in Scientific Transactions & Journals

1855 NORWOOD, J. G., and PRATTEN, Henry. Notice of fossils from the Carboniferous series of the western states belonging to the genera Spirifer, Bellerophon, Pleurotomaria, Macrocheilus, Natica, and Loxonema, with descriptions of eight new characteristic species.

Rd. before Phila. Acad. Nat. Sc. (1812), Feb. 6, 1855. In its Jour. n. s. v. 3, pt. 2, p. 71–7, 1 pl. 11 fig. Dec. 1855.

————. Notice of Producti found in the western states and territories, with descriptions of twelve new species.

Rd before Phila. Acad. Nat. Sc. (1812), May 8, 1855. In its Jour. n. s. v. 3, pt. 1, p. 5–21, 1 pl. May, 1855.

————. Notice of the genus Chonetes, as found in the western states and territories, with the descriptions of eleven new species.

Rd before Phila. Acad. Nat. Sc. (1812), May 8, 1855. In its Jour. n. s. v. 3, p. 23–32, 1 pl. May, 1855.

1859 WORTHEN, A. H. Remarks on the discovery of a terrestrial flora in the mountain limestone of Illinois.
Rd. before Amer. Assoc. Adv. Sc. (1848), Aug. 1859. In its Proc. v. 13, p. 312–13.

1860 ————. Notice of a new species of Platycrinus and other fossils, from the limestone of Illinois and Iowa, being an extract from the Second Illinois Report . . .
Rd before Acad. Sc. St. Louis (1856), Jan. 2, 1860. In its Trans. v. 1, p. 569–71.

MEEK, F. B. and WORTHEN, A. H. Descriptions of new species of Crinoidea and Echinoidea from the Carboniferous rocks of Illinois and other western states.
Rd before Phila. Acad. Nat. Sc. (1812), Sept. 18, 1860. In its Proc. v. 12, p. 379–97.

————. Description of new Carboniferous fossils from Illinois and other western states.
Rd before Phila. Acad. Nat. Sc. (1812), Oct. 23, 1860. In its Proc. v. 12, p. 447–72.

1861 ————. Descriptions of new Palaeozoic fossils from Illinois and Iowa.
Rd before Phila. Acad. Nat. Sc. (1812), June 4, 1861. In its Proc. v. 13, p. 128–48.

1863 ENGELMANN, Henry. Remarks upon the causes producing the different characters of vegetation known as prairies, flats and barrens in southern Illinois, with special reference to observations made in Perry and Jackson Counties.
In Amer. J. Sc. (1818), ser. 2, v. 36, p. 384–96. Nov. 1863.

————. On the lower Carboniferous system as developed in southern Illinois being the results of some explorations made by him in the summer of 1862.
Rd before Acad. Sc. St. Louis (1856), Nov. 3, 1862. In its Trans. v. 2, p. 188–90. May, 1863.

1865 MEEK, F. B., and WORTHEN, A. H. Notice of some new types of organic remains from the coal measures of Illinois.
Rd before Phila. Acad. Nat. Sc. (1812), Mar. 21, 1865. In its Proc. v. 17, p. 41–52.

————. Descriptions of new Crinoidea . . . from the Carboniferous rocks of Illinois and some of the adjoining states.
Rd before Phila. Acad. Nat. Sc. (1812), July 11, 1865. In its Proc. v. 17, p. 155–66.

———— Contributions to the palaeontology of Illinois and other western states.
Rd before Phila. Acad. Nat. Sc. (1812), Nov. 14, 1865. In its Proc. v. 17, p. 245–73.

LEE'S DOLPHIN EXPEDITION (1851)

History

In 1851, Lt. S. P. Lee was ordered by the Navy Department to conduct a cruise in the U. S. Brig "Dolphin," the object of which was the "testing of new routes and perfecting the discoveries made by Lt. Maury in the course of his investigations of the winds and currents of the ocean." The explorations were continued for three years. Deep sea dredgings were made, and the resulting specimens described by Prof. J. W. Bailey. Lee's Report was rendered in 1854.

Report

1854 LEE, S[amuel] P[hillips]. Report and charts of the cruise of the U. S. Brig Dolphin, made under direction of the Navy Department. . . . Washington, 1854. 8+331+2 p. map. charts. (In U. S. 33rd Cong., 1st sess., Sen. Ex. Doc. v. 9, no. 59) Serial no. 699.
p. 327–28 BAILEY, J. W. List of specimens of the bottom.

Paper in Society Transactions

1861 BAILEY, L. W. Notes on a new species of microscopical organisms, chiefly from the Para River, South America.
Rd before Bost. Soc. Nat. Hist. (1830), Apr. 3, 1861. In its Jour. v. 7, no. 3, p. 329–52. July, 1861.

OREGON & WASHINGTON SURVEYS BY EVANS (1851)

History

"In March, 1851, Dr. John Evans was appointed by the Secretary of the Interior, "to institute geological researches on the main lines of the public land surveys about to be commenced in Oregon (Territory—which then included the state of Washington), and entered zealously on that laborious duty, exploring the Falls of the Missouri to the Flat Head Pass in the Rocky Mountains, and through that pass from the forty-sixth to the forty-ninth degrees of north latitude and to the Columbia River."

"The valleys of the Flat Head Lake and Bitter Root Rivers were also explored, and he crossed the Bitter Root range of mountains, which are one hundred and twenty miles wide; explored the country to the Spokane River, the Clear Water, Snake, Walla Walla, Utillah, John Day's and Falls Rivers, to the Columbia, and thence to Oregon City . . ."

"He collected specimens of all the rocks, minerals, fossils and soils of those wide-spread regions and forwarded them for description and analysis to Drs. D. D. Owen, Litton, Leidy, Shumard, Lesquereux, and the author . . . Dr. Evans worked steadily on his report, presented it to Congress, and having had an opportunity to revisit Oregon and Washington territories, by consent of Congress, withdrew his report for the purpose of adding to it his last researches . . . We understand that this labor was performed and the revised and completed report is now in the General Land Office at Washington, awaiting publication . . ." C. T. JACKSON, in the Amer. J. Sc. ser. 2, v. 32, p. 312–13. Nov. 1861.

In the year 1853, the government began its great series of explorations known as the Pacific Railroad Surveys (1853), q.v., and John Evans was appointed geologist to the main party under Gov. I. I. Stevens, working along the 47th and 49th parallels of north latitude. Evans combined his Reports and forwarded them to Washington; but they were unfortunately lost in transit. For a number of papers descriptive of the collections made by him, see Pacific RR. Surv. (1853), v. 1, & 12, Papers in Society Transactions. Below is a paper by Shumard describing some earlier collections made by Evans.

Benjamin Franklin Shumard acted as assistant to Evans for a short time. See his Obituary of Evans, in Acad. Sc. St. Louis. Trans. v. 2, p. 162–64. 1861.

G. P. MERRILL in his First 100 yrs. Amer. Geol. 1924. p. 318, footnote, states that the supposedly lost MSS. noted above was recovered in part in 1917 by D. L. Bushnell, Jr., who deposited it in the archives of the Smithsonian Institution.

Bibliography

1857 SHUMARD, B. F. Descriptions of new fossils from the Tertiary formations of Oregon and Washington Territories, and the Cretaceous of Vancouver's Island, collected by Dr. John Evans. . . . Rd before Acad. Sc. St. Louis (1856), Dec. 28, 1857. In its Trans. v. 1, p. 120–25. 1858.

SITGREAVES' EXPEDITION DOWN THE ZUNI AND COLORADO RIVERS (1851)

History

In Sept. 1851, Lt. Lorenzo Sitgreaves received the following instructions regarding an expedition down the Zuni and Colorado

Rivers: "The river Zuni is represented on good authority to empty into the Colorado, and it has been partially explored by Lieut. Simpson to the Pueblo of Zuni. You will therefore go to that place, which will be in fact, the commencing point of your labors. From the Pueblo of Zuni, you will pursue the Zuni to its junction with the Colorado, determining its course and character, particularly in reference to its navigable properties, and to the character of its adjacent land and productions. The junction of the Zuni and Colorado will be accurately determined. You will then pursue the Colorado to its junction with the Gulf of California . . ."

The expedition was organized at Santa Fe, and left September 24, 1851. The expedition continued through December of the same year. S. W. Woodhouse accompanied the party in the capacities of surgeon and naturalist. Sitgreaves was also assisted by R. H. Kern and Lt. J. G. Parke. The Final Report was rendered Feb. 7, 1853, and published in the same year.

Woodhouse made the collections and described all but those on fishes, reptiles and botany, which were reported by Messrs. Baird & Girard, Edward Hallowell and John Torrey, respectively.

For details of routes followed, see also WARREN, p. 63–4. For papers by Woodhouse and others published before the Final Report see below PAPERS IN SOCIETY TRANSACTIONS.

Report

1853 SITGREAVES, L[orenzo]. . . . Report of an expedition down the Zuni and Colorado Rivers. . . . Washington, Robert Armstrong, printer, 1853. 198 p. illus. 80 pl. fold. maps. (In U. S. 32d Cong., 2d sess., Sen. Ex. Doc. v. 10, no. 59). Serial no. 668.

CONTENTS:

p. 4– 21 SITGREAVES, L. Report

p. 23– 9 ———— Meteorological and geographical tables, etc.

p. 31– 40 WOODHOUSE, S. W. Report on the natural history of the country passed over by the exploring expedition under . . . Capt. L. Sitgreaves . . . during the year 1851.

Covers in part the expeditions by SITGREAVES & WOODRUFF, in U. S. SURV. CREEK BOUNDARY LINE (1849), q.v., and Capt. JOHNSTON'S IN RECONN. ROUTES SAN ANTONIO TO EL PASO (1849), q.v.

p. 43–105 ———— Zoology: Mammals and birds. 12 pl.

p. 43– 57, 6 pl. Mammals

p. 58–105, 6 pl. Birds

p. 106– 47 HALLOWELL, Edward. Reptiles. 20 pl.
p. 148– 52 BAIRD, S. F., and GIRARD, Charles. Fishes. 3 pl.
p. 153– 78 TORREY, John. Botany. 21 pl.

Papers in Society Transactions

1852 WOODHOUSE, S. W. Descriptions of new species of birds of the genera Vireo, Vieill., and Zonotrichia, Swains.
Rd before Phila. Acad. Nat. Sc. (1812), Apr. 6, 1852. In its Proc. v. 6, p. 60–1.

LE CONTE, J. L. Remarks on some Coleopterous insects collected by S. W. Woodhouse, in Missouri Territory and New Mexico.
Rd before Phila. Acad. Nat. Sc. (1812), Apr. 13, 1852. In its Proc. v. 6, p. 65–8.

WOODHOUSE, S. W. Description of a new species of Sciurus.
Rd before Phila. Acad. Nat. Sc. (1812), June 1, 1852. In its Proc. v. 6, p. 110.

HALLOWELL, Edward. Descriptions of new species of reptiles inhabiting North America.
Rd before Phila. Acad. Nat. Sc. (1812), Oct. 19, 1852. In its Proc. v. 6, p. 177–82.

WOODHOUSE, S. W. Description of a new species of Numineus (Moehr).
Rd before Phila. Acad. Nat. Sc. (1812), Nov. 23, 1852. In its Proc. v. 6, p. 194–95.

———— Description of a new species of pouched rat, of the genus Perognathus, Wied.
Rd before Phila. Acad. Nat. Sc. (1812), Dec. 7, 1852. In its Proc. v. 6, p. 200–1.

———— Description of a new species of the genus Geomys, Raf.
Rd before Phila. Acad. Nat. Sc. (1812), Dec. 7, 1852. In its Proc. v. 6, p. 201–2.

———— Description of a new snow finch of the genus Struthus, Boie.
Rd before Phila. Acad. Nat. Sc. (1812), Dec. 14, 1852. In its Proc. v. 6, p. 202–3.

1853 ———— Pouched rat, genus Dipodomys, Ordii, Gray.
Rd before Phila. Acad. Nat. Sc. (1812), Jan. 11, 1853. In its Proc. v. 6, p. 235–36.

———— Description of a new species of mouse, genus Hesperomys, Waterhouse.
Rd before Phila. Acad. Nat. Sc. (1812), Feb. 1, 1853. In its Proc. v. 6, p. 242.

BAIRD, S. F., and GIRARD, Charles. Descriptions of some new fishes from the River Zuni.
Rd before Phila. Acad. Nat. Sc. (1812), Rd June 21, 1853. In its Proc. v. 6. p. 368–69.

SOCIETY FOR THE ADVANCEMENT OF NATURAL SCIENCES, LOUISVILLE, KY. (1851)

History

During the winter of the year 1851, a few gentlemen conceived the idea of founding a scientific society, the aim of which should be to make an extensive collection of the fauna and flora of the state, and to lay the foundation of a scientific library. In furtherance of this object, a meeting was held, December 6, 1851, and the society organized. On the 11th of the same month, the following gentlemen were elected officers: Prof. Charles Short, president; Prof. J. Cobb, vice-president; Prof. L. P. Yandell, secretary, and S. A. Casseday, treasurer. Immediately upon this election, a most decided opposition to the Society sprang up, and for some weeks a fierce newspaper war was waged against it. It was denominated "the mutual admiration society" and made the subject of daily ridicule. The cause of this determined opposition was the jealousy existing between the rival medical schools of that period. These rancorous bickerings exhibited a spirit wholly unworthy of gentlemen occupying high positions in the scientific world, and resulted only in directing attention to the society and its operations.

A series of weekly lectures was delivered upon various scientific subjects, embracing chemistry, zoology, entomology, comparative anatomy, geology, etc. Notwithstanding the very disagreeable weather and often almost impassable condition of the streets, it was several times found difficult to seat the numbers who thronged the lecture rooms of the institution. These lectures, continued through two winters were marked by the greatest ability and formed a most attractive feature . . . During the two years of the society's existence, a considerable sum of money was collected, the greater portion of which was expended for cases suitable for the exhibition and conservation of specimens. A fine collection of mastodon bones, fresh water shells, minerals, and fossil corals of the Palaeozoic rocks, was deposited in them, forming the basis of a large and useful cabinet. Unfortunately, the whole of this collection was destroyed during the conflagration of the building of the medical department of the University of Louisville, where they had been temporarily deposited.

The existence of this Society, like that of many of its predecessors, was destined to be short. During the year 1854, several of

the most zealous and influential cultivators of science removed from the city, and the number of members being materially lessened, it was found impossible, notwithstanding the strenuous efforts of the remainder, to keep alive the interest which had thus been created. Had this Society continued its organization, the effect upon the community, in drawing attention to scientific subjects, would have been quite satisfactory. So excellent a commencement might to-day have been in full fruition, and Louisville might have boasted a prominent position in the scientific annals of the country.

But though for a while the desire to compass an organization seemed in lethargy, it was not dead. The votaries of science waited but for a favorable opportunity to renew their efforts. In the fall of 1858 a few enthusiastic students of the sciences met together to determine some permanent basis upon which to erect a society for the acquisition and advancement of scientific knowledge. Although the local history of former institutions presented little encouragement for such an undertaking, yet it was determined to make a commencement. During the month of November, the present officers were elected, and the Society commenced life in earnest: [S. A. Casseday, president; T. E. Jenkins, vice-president; W. N. Hailman, secretary; L. N. Dembitz, treasurer; C. J. Knapp, librarian.]

Aware that former failures were the result of having nothing to keep alive a once awakened interest, rather than of any distaste or other cause, the founders of this Society determined to devote all money not actually required for current expenses, to the purchase of the scientific periodicals of the day . . . The rooms are open every Thursday and Monday evenings . . .

Besides the evenings devoted to reading, there are two evenings of each month on which regular meetings are held, when a paper on some scientific subject is read before the society by some active member . . . Several of these papers have already been published and others are in progress of publication.

No efforts have been made towards a museum of natural history, as the funds are not sufficient to procure suitable rooms or to furnish proper cases for the conservation of specimens . . .'' Constitution, p. 3–5. [see below.]

Nothing more can be learned concerning the subsequent history of this organization.

Bibliography

1859 SOCIETY FOR THE ADVANCEMENT OF NATURAL SCIENCES OF LOUISVILLE. Constitution and by-laws . . . including an account of a former natural history society. Louisville, 1859. 8 p.

Copy seen at Library of Congress.

WISCONSIN STATE AGRICULTURAL SOCIETY (1851)

History

The Wisconsin State Agricultural Society, founded in 1851, published through its Transactions a number of papers on natural history by Messrs. Lapham and Hoy (see below PAPERS ON NATURAL HISTORY).

Bibliography

1853 WISCONSIN STATE AGRICULTURAL SOCIETY. Transactions of . . . together with . . . report of annual convention. Madison, state printer, 1853–date. v. 1—date.

Papers on Natural History

1852 LAPHAM, I. A., and HOY, P. R. Fauna and flora of Wisconsin: a systematic catalogue of the animals and plants of Wisconsin. T. v. 2, p. 337–434.

Woods of Wisconsin, by HOY. p. 419–34.

HOY, P. R. Trees of Wisconsin. T. v. 2, p. 419–34.

Cont. in v. 4, p. 195–251. 1854–55.

1853 LAPHAM, I. A. The grasses of Wisconsin, and the adjacent states of Iowa, Illinois, Indiana, Ohio and Michigan, the territory of Minnesota, and the regions about Lake Superior. T. v. 3, p. 397–488, 12 pl.

1855 ———— The forest trees of Wisconsin. T. v. 4, p. 195–251.

Rev. in Amer. J. Sc. v. 76, p. 139. July, 1858.

ANNALS OF SCIENCE (1852)

History

The ANNALS OF SCIENCE, of which two volumes were published, made its first appearance at Cleveland on October 15, 1852, under the editorship of Hamilton Lanphere Smith. During the first year of its existence it was published on the 1st and 15th of each month; and monthly during its second and last year.

Volume 1 included the Transactions of the American Association For the Advancement of Science (1848), q.v., which held its 1853 meeting at Cleveland. Volume 2 included the Proceedings of the Cleveland Academy of Natural Sciences (1845), q.v. Below are given the PAPERS ON NATURAL HISTORY contained in the two volumes.

Bibliography

1852 ANNALS OF SCIENCE, being a record of inventions and improvements in applied science . . . conducted by H. L. Smith. Cleveland, 1852–54. 2 v.

Papers on Natural History

1852 **v. 1, no. 1, October 15**

NEWBERRY, J. S. Fossil fishes of the cliff limestone. p. 12–3, illus.

v. 1, no. 2, November 1

WHITTLESEY, Charles. The ancient miners of Lake Superior. p. 15–8, 27–30, illus.

Intended for the postponed (1852) meeting of the Amer. Assoc. Adv. Sc. (1848), q.v.

BRAINERD, J[ehu]. Fossil fishes. p. 18–20, illus.

ANON. Circulation of plants. p. 23–4, illus.

v. 1, no. 3, November 15

SMITH, H. L. On ciliary movements. p. 31–2, illus.

v. 1, no. 4, December 1

———— Phytozoa. p. 45–6, illus.

DESOR, E. On the drift of the northern and western states. p. 47–8. (Transl. from Geol. Soc. France. Bull.)

1853 **v. 1, no. 6, January 1**

WHITTLESEY, Charles. Western Reserve coal field. p. 70–2, sect.

v. 1, no. 8, February 1

NEWBERRY, J. S. Fossil plants from the Ohio coal basin. p. 95–7.

v. 1, no. 9, February 15

———— Fossil plants . . . (cont.). p. 106–8.

v. 1, no. 10, March 1

———— New fossil plants from Ohio. p. 116–17, illus.

v. 1, no. 11, April 1

BURNETT, W. I. Points in reproduction of small animals. p. 123–24.

FOSTER, J. W. New species of fossil plants from Ohio. p. 128–29, illus.

v. 1, no. 13, May 1

NEWBERRY, J. S. New species of fossil plants from Ohio. p. 152–53, illus.

WHITTLESEY, Charles. Origin of the bitumen of stratified rocks. p. 153–57.

WETHERILL, C. M. Food of the queen bee. p. 157.

v. 1, no. 14, May 15

ANON. Geological surveys of the west. p. 164.

NEWBERRY, J. S. New fossil plants from Ohio. p. 164–65, illus.

v. 1, no. 15, June 15

SMITH, H. L. Phytozoa. p. 176–77, illus.

1854 **v. 2, no. 1, January**

———— The microscope and microscopic manipulation. p. 6–7.

v. 2, no. 3, March

———— The microscope . . . (cont.). p. 79–81.

WHITTLESEY, Charles. Drift etchings—Lake Superior. p. 57–9.

v. 2, no. 4, April

HARRIS, T. W. Letter to Dr. Kirtland on Varessa furcillata. p. 100–1.

v. 2, no. 5, May

SMITH, H. L. The microscope. . . (cont.). p. 132–33.

KANE'S EXPEDITION TO THE ARCTIC REGIONS (1852)

History

On November 27, 1852, Elisha Kent Kane received orders to go "to the highest penetrable point of Baffin's Bay, from which we were to search for the missing vessels of Sir John Franklin. The party sailed from New York on May 30, 1853, in the brig "Advance" and attained the highest northern position up to that time, in latitude 78° 43′ N. Kane's explorations were continued through 1854 and 1855. He had previously been a member of the U. S. Grinnell Expedition in search of Sir John Franklin, 1850–1852.

He rendered brief official reports in 1855, and published popular accounts in 1854 and 1856 (see Bibliography, below). Although not strictly a scientific expedition, Kane made some collections, chiefly botanical, which were described by Elias Durand (see below (PAPERS IN SOCIETY TRANSACTIONS).

Bibliography

1854 KANE, Elisha Kent. The U. S. Grinnell Expedition in search of Sir John Franklin; a personal narrative. N. Y. Harper, 1854. 552 p. illus. pl.

Rev. in North Amer. Rev. v. 80, p. 307–42. Apr. 1855. First printing dated 1853.

1856 ————. Arctic explorations in the years 1853, '54, '55. Phila. Childs & Peterson, 1856. 2 v. illus. pl. port. maps.

Rev. in North Amer. Rev. v. 84, p. 95–122. Jan. 1857.

v. 2, p. 442–67, appx. no. 18. DURAND, Elias. Enumeration of plants collected in his first and second expeditions to the Polar regions, with descriptions and remarks.

Repr. below (see PAPERS IN SOC. TRANS.: 1856)

1860 HAYES, Isaac I[srael]. An Arctic boat journey in the autumn of 1854. . . . Bost. Brown & Taggart, 1860. 17 + 375 p. map.

Another ed., 1867. 25 + 387 p.

1884 NOURSE, J[oseph] E[verett]. American explorations in the ice zones: the expeditions of De Haven, Kane, Rodgers, Hayes, Hall, Schwatka . . . prepared chiefly from the official sources. . . . Boston, Lothrop, 1884. 578 p. illus.

ch. 3, p. 65–107, deal with Kane's Expeditions.

Report

(1), Senate ed., Serial no. 812.

1855 KANE, Elisha Kent. Report to the Secretary of the Navy, Dec. 3, 1855. (In U. S. 34th Cong., 1st sess., Sen. Ex. Doc., v. 3, no. 1, p. 52–68) Serial no. 812.

(2), House ed., Serial no. 842.

————. Same. . . . Washington, 1855. (In U. S. 34th Cong., 1st sess., H. Ex. Doc. v. 1, pt. 3, no. 1, p. 52–68) Serial no. 842.

Papers in Society Transactions

1852 JUSTICE, G. M. . . . The Protococcus nivalis brought by Dr. Kane from the Arctic Regions . . . and a microscopical description of the plant.

Rd before Amer. Phil. Soc. (1769), Apr. 2, 1852. In its Proc. v. 5, p. 262.

KANE, E. K. A number of specimens of vegetable matter found by him on the ice-plains of the Polar Seas.

Rd before Amer. Phil. Soc. (1769), May 7, 1852. In its Proc. v. 5, p. 266–67.

1856 DURAND, Elias. . . . The collection of plants brought from the Arctic Regions by the Expedition under the command of Dr. Kane.
Rd before Amer. Phil. Soc. (1769), Apr. 18, 1856. In its Proc. v. 6, p. 186–87.

———— Plantae Kaneanae Groenlandicae: enumeration of plants collected by Dr. E. K. Kane, in his first and second expeditions to the Polar Regions, with descriptive remarks.
Rd before Phila. Acad. Nat. Sc. (1812), May 6, 1856. In its Jour. ser. 2, v. 3, pt. 3, p. 179–204. Nov. 1856.

MARCY'S EXPLORATION OF THE RED RIVER (1852)

History

Orders dated March 5, 1852, ordered Captains R. B. Marcy and G. B. McClellan to explore the Red River of Louisiana. Dr. G. G. Shumard was the surgeon and naturalist of the expedition. McClellan acted as the chief assistant. The party left Fort Belknap, on May 2, and returned to Fort Arbuckle, on July 28, 1852.

Natural history collections were made and submitted to Messrs. Shepard, Edward Hitchcock, B. F. Shumard, S. F. Baird, Charles Girard, C. B. Adams, John Torrey and W. W. Turner.

Marcy's Report was rendered December 5, 1852, and the publication of same occurred in 1853.

For details of the routes followed, see also WARREN, p. 64, (see Annot. Bib. v. 1).

For critical notes on the geology contained in the Report, see also MERRILL, (1), p. 434–35. (See Annot. Bib.). See also his First 100 yrs. Amer. Geol. 1924. p. 303–4.

Bibliography

1898 COVILLE, F. V. Three editions of Marcy's "Report on the Red River of Louisiana." (In Torrey Bot. Club. Bull. v. 25, p. 155–57. March, 1898)
The three editions examined at N. Y. Public Library.

Report

(1) Armstrong ed., Serial no. 666

1853 MARCY, Randolph B[arnes], and McCLELLAN, George B[rinton]. . . . Exploration of the Red River of Louisiana in the year 1852, by Randolph B. Marcy, assisted by George B. McClellan; with reports on the natural history of the country . . .

Washington, Robert Armstrong, 1853. 15+320+12 p. 66 pl. illus. 2 maps. (In U. S. 32d Cong., 2d sess., Sen. Ex. Doc. v. 8, no. 54). Serial no. 666

Report rendered Dec. 5, 1852.

Rev. in Amer. J. Sc. v. 69 (ser. 2, v. 19), p. 437–38. May, 1855.

This edition is the only one to be found in the Serial set.

(2) Tucker ed. Not in Serial Set.

1854 ————. Same . . . Washington, B. Tucker, 1854. 15+310 p. illus. 66 pl. 2 maps. (U. S. Engineer Bureau).

In U. S. 33rd Cong., 1st sess. Sen. Ex. Doc. unnumbered.

A reprint of the preceding with the TUCKER imprint, and dated 1854.

(3) Nicholson ed. Not in Serial Set.

————. Same . . . Washington, A. O. P. Nicholson, 1854. 15+286 p. illus. 66 pl. 2 maps. (U. S. Engineer Bureau).

In U. S. 33rd Cong., 1st sess., H. Ex. Doc. unnumbered.

CONTENTS:

(In Serial Set, Serial no. 666)

p. 1–152 MARCY, R. B. Narrative of the expedition.
appx. A., p. 119–37 Meteorological observations.
appx. B., p. 139–52 Table of courses and distances.
p. 153–304 Natural History Reports (In Appendixes)
p. 153– 59 SHEPARD, C. U. Report on the minerals collected. June 1, 1853. Appx. C.
p. 163– 78 HITCHCOCK, Edward. Notes upon the specimens of rocks and minerals collected. June 5, 1853. Appx. D.
p. 179– 95 SHUMARD, G. G. Remarks upon the general geology of the country passed over by the Exploring Expedition. . . Appx. D. 10 sect.
p. 197–211 SHUMARD, B. F. Paleontology: Description of the species of Carboniferous and Cretaceous fossils collected. Appx. E. 6 pl.
p. 215– 16 MARCY, R. B. Mammals. Appx. F.
p. 217– 44 BAIRD, S. F., and GIRARD, Charles. Reptiles. Appx. F. 11 pl.
p. 245– 52 ———— Fishes. Appx. F. 3 pl.
p. 253– 56 ADAMS, C. B. Shells. . . Dec. 1, 1852. Appx. F.
p 257– 61 GIRARD, Charles. Orthopterous insects. Appx. F. 1 pl.
p. 262– 71 ———— Arachnidians. Appx. F., 2 pl. 18 fig.
p. 272– 75 ———— Myriapods. Appx. F.
p. 277–304 TORREY, John. Botany: Description of the plants collected during the expedition. Appx. G. 20 pl. 79 fig. Written Aug. 10, 1853.
p. 305– 11 MARCY, R. B., and TURNER, W. W. Ethnology.
p. 313– 20 Index.

1853 BAIRD, S. F., and GIRARD, Charles. Description of new species of fishes collected by Captains R. B. Marcy and G. B. McClellan in Arkansas. Rd before Phila. Acad. Nat. Sc. (1812), Aug. 16, 1853. In its Proc. v. 6, p. 390–92.

NATIONAL BOTANIC GARDEN, WASHINGTON (1852)

History

Attempts to found a National Botanic Garden were made by the Columbian Institute for the Promotion of Arts & Sciences (1816), q.v., as early as 1822. Both then and in 1829, unsuccessful efforts were made to persuade Congress to appropriate the necessary amounts. In the forties, the National Institution for the Promotion of Science (1840), q.v., revived the proposition for a Botanic Garden, but with no success.

With the return of the great Wilkes United States Exploring Expedition (1838), q.v., in 1842, a vast amount of botanical material was placed at the disposal of the government for safe and adequate preservation. The collections were kept temporarily in greenhouses near the Patent Office, which then housed all the Exploring Expedition material.

In 1852, the NATIONAL BOTANIC GARDEN as such was organized by moving the botanical collections to the present site of the Botanical Garden, west of the Capitol, on the southern side of Pennsylvania Avenue. The collections were at this period under the care of W. D. Brackenridge, the horticulturist of the Expedition under Wilkes.

Bibliography

1886 VASEY, George. National Herbarium at Washington. (In Bot. Gaz. v. 11, no. 6, p. 153–56. June, 1886).

1917 RATHBUN, Richard. The Columbian Institute for the Promotion of Arts and Sciences: a Washington Society of 1816–1838, which established a Museum and a Botanic Garden under government patronage. Wash. Gov't print. office, 1917. 3+87 p. (In U. S. Nat. Mus. Bull. no. 101).

PERRY'S U. S. JAPAN EXPEDITION (1852)

History

In 1852, Commodore M. C. Perry conducted his famous expedition for the purpose of opening commercial relations with Japan.

The expedition continued through 1854. The results and narrative of the journey were published in 1856 in three volumes.

"With reference to the following papers upon the respective branches of natural history of which they particularly treat, it should be borne in mind that in the equipment of the Japan Expedition, scientific researches were to be considered of secondary importance, and consequently no special appropriations were made or any steps taken at the outset to employ civilians, as in other expeditions, for purposes purely scientific . . . Mr. William Heine contributed chiefly to the procurement of the birds. The Collections of fishes and shells were made under my own supervision, and the botanical specimens gathered and preserved by the chief interpreter, Mr. S. W. Williams and Doctors Green, Fahs and Morrow." PERRY. v. 2, p. 213.

In addition to the above named, Perry was assisted by Rev. George Jones, G. R. West, Junius J. Boyle, Joel Abbot, Bayard Taylor. Reports on the collections made were submitted by John Cassin, J. C. Jay, Asa Gray, J. C. Brevoort, Francis Boott, D. C. Eaton, W. H. Harvey, W. S. Sullivant.

The Final Report was published in both a House and a Senate edition. Contents of volumes are given below.

Report

(1) Senate ed., Serials no. 769, 770, 771.

1856 PERRY, M[atthew] C[albraith], and HAWKS, Francis L[ister]. . . . Narrative of the expedition of an American squadron to the China seas and Japan performed in the years 1852, 1853 and 1854, under the command of Commodore M. C. Perry, United States Navy, by order of the government of the United States, compiled from the original notes and journals of Commodore Perry—his officers, at his request, and under his supervision by Francis L. Hawks. Washington, 1856. 3 v. illus. pl. maps. charts, tab. diagr. 4°. (In U. S. 33d Congress., 2d sess., Sen. Ex. Doc. v. 14, no. 79, 3 parts). Serials no. 769, 770, 771.

(2) House ed., Serials no. 802, 803, 804.

————. Same . . . Washington, 1856. 3 v. illus. pl. maps, charts, tab. diagr. (In U. S. 33d Cong., 2d sess., H. Ex. Doc. v. 12, no. 97, 3 parts). Serials no. 802, 803, 804.

v. 1, Narrative by F. L. Hawks. 18 + 537 p. illus. pl.

v. 2, Papers on natural history, agriculture, etc. 414 + 20 + 13 p. illus. pl. maps.

v. 3, Zodiacal light, by Rev. George Jones. 43 + 705 p.
v. 1 rev. in North Amer. Rev. v. 82, p. 559–62. Apr. 1856.
v. 2 rev. in North Amer. Rev. v. 83, p. 233–60. July, 1856.

CONTENTS:

v. 1, Serial no. 769 or 802

HAWKS, F. L. Narrative of the Expedition. 18 + 537 p. illus. pl.

v. 2, Serial no. 770 or 803

p. 1– 11 GREEN, D. S. Report on the agriculture of Madeira. Cape of Good Hope, Mauritius, etc.
p. 13– 20 MORROW, J. Report on the agriculture of Lew Chew.
p. 21– 37 GREEN, D. S. Report on the medical topography and agriculture of the Island of Great Lew Chew.
p. 39– 50 FAHS, C. F. Report made to Commodore Perry on the botany, ethnography, etc., of the Island of Great Lew Chew. Written Feb. 5, 1854.
p. 51– 6 JONES, George. Report . . . of a geological exploraploration of the Island of Lew Chew. . . Feb. 6, 1854.
p. 57– 63 ———— Report . . . of an exploration of Great Lew Chew. May 9, 1854.
p. 65– 71 TAYLOR, Bayard. Report . . . upon the exploration of Peel Island. June 18, 1853.
p. 73– 8 FAHS, C. F. Report . . . of an exploration of Peel Island. June 18, 1853.
p. 79– 88 GREEN, D. S. Report upon the agriculture of Japan.
p. 89– 93 ———— Report upon medical topography of Japan.
p. 94– 8 JONES, George. Report respecting a mineral spring near Hakodadi on the Island of Jesso, Japan.
p. 99–107 GREEN, D. S. Report upon agriculture of China.
p. 109– 13 WEST, G. R. Paper upon agriculture of China.
p. 115– 19 BOYLE, J. J. Report of examination of Volcano Bay.
p. 121– 33 ABBOT, Joel, and others. Reports.
p. 135– 49 PERRY, M. C., and others. Instructions and reports in relation to a visit to Manila and Formosa by the Japan Expedition.
p. 151– 63 JONES, George. Reports . . . of a visit to the coal regions of the Island of Formosa. July 22 & 28, 1854.
p. 165– 70 BACHE, B. F. Report of a comparative analysis of Cumberland, Formosa, and Japan coal.
p. 171–210 PERRY, M. C., and others. Reports on commercial relations with Far East.
p. 211– 13 PERRY, M. C. Introductory note to natural history papers.
p. 215– 48 CASSIN, John. Birds. 6 col. pl.
(a) Birds collected in Japan. p. 219–35.
(b) Birds collected in China, the Loo Choo Islands . . . Singapore. Ceylon and on the coast of California. p. 236–48.

p. 253– 88 BREVOORT, J. C. Note on some figures of Japanese fish taken from the recent specimens by the artists of the U. S. Japan Expedition. 12 col. pl.
p. 289– 97 JAY, J. C. Report on the shells collected . . . together with a list of Japan shells. 5 pl. [42 fig.]
p. 301– 22 GRAY, Asa. Account of the botanical specimens.
p. 322– 29 BOOTT, Francis. Carices.
p. 329– 30 EATON, D. C. Filices.
p. 330. SULLIVANT, W. S. Musci and Hepaticae.
p. 331– 32 *HARVEY, W. H. Algae.

CALIFORNIA ACADEMY OF NATURAL SCIENCES (1853)

History

"The first meeting at which the organization of an Academy of Sciences in California was considered was held in San Francisco on April 4, 1853, at the office of Lewis W. Sloat, at what was then no. 129 on the west side of Montgomery Street . . . Seven gentlemen interested in science were present, viz.: Dr. Andrew Randall, Dr. Henry Gibbons, Dr. Albert Kellogg, Col. Thomas J. Nevins, Dr. John B. Trask, Dr. Charles Farris and Lewis W. Sloat. After a 'free conversation and an interchange of views and sentiments' it was decided to organize under the name of the "THE CALIFORNIA ACADEMY OF NATURAL SCIENCES."

"On April 11, a draft of a constitution was presented, which, after discussion, was recommended for correction and engrossment . . . On April 18, by-laws were presented . . . On Monday, May 16, the proposed constitution and by-laws and the name were formally adopted. On May 23, officers were elected as follows: President, Andrew Randall; vice-president, Henry Gibbons . . . On June 27, the Academy was legally incorporated. . . . At a meeting of January 13, 1868, the Constitution was slightly amended . . . and the name changed to that of the "California Academy of Sciences." CALIFORNIA ACAD. SC. Constitution. p. 3–4. 1915.

The Proceedings of the Academy were first printed in a newspaper of the day entitled: "The Pacific," in 1854. Between 1854 and 1865, three volumes were published. The first, 1854–57 was republished in 1873, as the 2d edition of v. 1.

The chief contributors to the Proceedings from 1854 to 1866 were W. O. Ayres, Albert Kellogg, J. B. Trask, Henry and W. P.

Gibbons, H. Behr, J. G. Cooper, H. N. Bolander, W. M. Gabb, W. P. Blake, Wesley Newcomb.

The Academy early began the formation of a museum, and a scientific library. J. B. Trask and J. D. Whitney, members of the Academy, were the state geologists between 1853 and 1865.

Its officers between 1853 and 1865 were, president: 1854–55, Andrew Randall; 1856–65, Leander Ransom; vice-presidents: Theodore Moss, A. Kellogg; curators at various periods: W. O. Ayres (zoology), T. L. Andrews (botany), W. P. Gibbons (geology), L. Lanszweert (zoology), L. W. Sloat (conchology), H. G. Bloomer (botany), J. B. Trask (geology), H. Behr (entomology), H. G. Hanks (mineralogy), J. A. Veatch (conchology).

Below, under PAPERS ON NATURAL HISTORY, are given in chronological order by date reading, the papers published in the Proceedings between 1854 and 1866.

Bibliography

1854 CALIFORNIA ACADEMY OF NATURAL SCIENCES. Proceedings . . . of the . . . 1854–date. San Francisco, 1854–date. illus, pl.

The dates of publication of the various parts of v. 1–3, are given below under PROCEEDINGS (P): Dates of publication.

1915 CALIFORNIA ACADEMY OF SCIENCES. Constitution and by-laws of . . . San Francisco, 1915. 52 p.

Proceedings (P)

Dates of Publication

v. 1, for Sept. 4, 1854–June 29, 1857, pub. 1854–57.
2d ed., pub. Dec. 31, 1873. 125 p. 6 pl. (Double columns)
pt. 1, for 1854–55, p. 1–83.
pt. 2, for 1856–57, p. 84–125.

v. 2, for Feb. 22, 1858–Dec. 15, 1862, 1858–1863, 236 p. 73 illus.
p. 1–124, for 1858–1861, pub. 1858–61.
p. 125– 40, pub. Dec. 1861.
p. 141– 56, Apr. 1862.
p. 157– 72, Sept.
p. 173– 88, Dec.
p. 189–236, Jan. 1863.

v. 3, for 1863–1867, pub. 1863–68. 411 p.
p. 1– 16 pub. Apr. 1863
p. 17– 32 May
p. 33– 64 Sept.
p. 65– 80 Nov.

p. 81– 96 Dec.
p. 97–112 Jan. 1864
p. 113– 28 Mar.
p. 129– 60 July
p. 161– 76 Dec.
p. 177– 92 Jan. 1865
p. 193–208 Feb.
p. 209– 48 Feb. 1866
p. 241– 56 May
p. 257– 72 Aug.
p. 273–312 Jan. 1867
p. 313– 60 Sept.
p. 361–411 May, 1868

Papers on Natural History

1854 GIBBONS, W. P. Description of four new species of viviparous fishes from Sacramento River and San Francisco Bay. Rd May 15.

Also rd before Phila. Acad. Nat. Sc. (1812), June 13, 1854. In its Proc. v. 7, p. 105–6.

———— Description of a new species of viviparous marine and fresh water fishes, from the San Francisco Bay, and from the river and lagoons of Sacramento. Rd May 15, 22, & 29.

Also rd before Phila. Acad. Nat. Sc. (1812), July 4, 1854. In its Proc. v. 7, p. 122–26.

AYRES, W. O. On Labrus pulcher, A. P. v. 1, p. 3–4. Rd Sept. 4.

———— . . . On Sebastes nebulosus and S. paucispinis. P. v. 1, p. 5–6. Rd Sept. 11.

———— On Sebastes ruper; A.; Centrarchus maculosus, A. P. v. 1, p. 7–8. Rd Sept. 18.

———— On Morrhua Californica, A.; and Grystes lineatus, A. P. v. 1, p. 8–10. Rd Oct. 2.

———— On Clypeocottus robustus, A. P. v. 1, p. 10–1. Rd Oct. 9.

———— On Brosmius marginatus, A.; Syngnathus griseo-lineatus, A. P. v. 1, p. 12–3. Rd Oct. 23.

KELLOGG, A. On Lavatera assurgentiflora, K. P. v. 1, p. 13–4. Rd Oct. 23.

AYRES, W. O. Descriptions of the sturgeons . . . found in our waters. P. v. 1, p. 14–6. Rd Oct. 30.

———— On Osmerus elongatus, A., and Mustelus felus, A. P. v. 1, p. 16–7. Rd Dec. 4.

BEHR, H. Cuscuta Ceanothi. P. v. 1, p. 16. Rd Dec. 4.

AYRES, W. O. Catostomus accidentalis, A.; Gila grandis, A. P. v. 1, p. 17–8. Rd Dec. 11.

———— On two Cyprinoid fish, Lavinia gibbosa, and L. compressa, A. P. v. 1, p. 19–20. Rd Dec. 18.

———— Description of Gila microlepidota, A. P. v. 1, p. 20–1. Rd Dec. 25.

1855 ———— On Liparis pulchellus, A.; and L. mucosus, A. P. v. 1, p 22. Rd Jan. 8.

WINSLOW, C. F. Fragment of a jaw of an extinct elephant in the drift of Texas. . . P. v. 1, p. 23. Rd Jan. 8.

KELLOGG, A. Quercus Ransomi. P. v. 1, p. 23–4. Rd Jan. 15.

AYRES, W. O. On Leiostomus lineatus, A., and Leptogunnellus, gracilis, A. P. v. 1, p. 24–5. Rd Jan. 22.

KELLOGG, A. On a Linariad considered new. P. v. 1, p. 25–6. Rd Jan. 29.

AYRES, W. O. On Petromyzon plumbeus, A. P. v. 1, p. 27. Rd Feb. 5.

TRASK, J. B. On three specimens of Naiades, with descriptions, from the Sacramento River and lagoons. P. v. 1, p. 27–8. Rd Feb. 12.

GIBBONS, Henry. On the Redwood and Mammoth trees . . . P. v. 1, p. 28. Rd Feb. 12.

TRASK, J. B. On a new species of Alasmodon, from the Yuba River. P. v. 1, p. 29. Rd Feb. 19.

AYRES, W. O. On Anarrhichthys ocellatus, A. P. v. 1, p. 30–1. Rd Feb. 26.

———— . . . On Catostomus labiatus, A. P. v. 1, p. 31–2. Rd Mar. 5.

KELLOGG, A. On Arabis blepharophylla. P. v. 1. p. 32. Rd Mar. 12.

AYRES, W. O. On Mylopharodon robustus, A. P. v. 1, p. 32–4. Rd Mar. 12.

ANTISELL, Thomas. . . . On fossils derived from San Luis Obispo County. P. v. 1, p. 34–5. Rd Mar. 12.

GIBBONS, W. P. On Salmo iridia, G. P. v. 1, p. 35–6. Rd Mar. 19.

AYRES, W. O. On a specimen of a canine foetus of full term, exhibiting a singular instance of abnormal formation resulting from the union of two ova, one developing of course in part at the expense of the other. P. v. 1, p. 36. Rd Mar. 19.

KELLOGG, A. On the California elecampane, Melarhiza, K.; and Marsh muricatus. P. v. 1, p. 36–8. Rd Mar. 26.

TRASK, J. B. On Ammonites Batesii, T. P. v. 1, p. 39. Rd April 2.

AYRES, W. O. On Platessa bilineata, A. P. v. 1, p. 39–40. Rd April 2.

TRASK, J. B. Descriptions of fossil shells from the Tertiary deposits of the lower coast. P. v. 1, p. 40–2. Rd April 9.

AYRES, W. O. On Salmo rivularis, A., and Petromyzon ciliatus, A. P. v. 1, p. 43–4. Rd April 16.

K[ELLOGG, A.] On Fritillaria alba and F. multiscapidea, K. P. v. 1, p. 45–6. Rd April 23.

Ayres, W. O. On Gasterosteus serratus, A., supposed to be new. P. v. 1, p. 46–7. Rd April 30.

Gibbons, W. P. On Ctenorhinus setimanus, G. P. v. 1, p. 47–8. Rd April 30.

Ayres, W. O. On Scalops Californicus, A. P. v. 1, p. 52–3. Rd May 21.

Kellogg, A. On four species of Ceanothus, or tea-tree. P. v. 1, p. 53–4. Rd May 21.

Ayres, W. O. On Apodichthys vivescens, A. P. v. 1, p. 54–5. Rd May 21.

Kellogg, A. On Viola Montana and V. purpurea, K. P. v. 1, p. 55–6. Rd May 28.

————. On a species of Echinocystis muricatus, etc. P. v. 1, p. 56–8. Rd June 4.

Ayres, W. O. On Cebidichthys crista-galli, A. P. v. 1, p. 58–9. Rd June 4.

Kellogg, A. On Mimulus atropurpurea? P. v. 1, p. 59–60. Rd June 11.

————. On Azalea nudiflora, var. ciliata, etc. P. v. 1, p. 61. Rd June 18.

Behr, H. On Chloropyron mihi. P. v. 1, p. 62. Rd June 25.

Davis, Horace. Geological specimens. P. v. 1, p. 62. Rd. June 25.

Kellogg, A. On Polygala cornuta, etc. P. v. 1, p. 62–4. Rd July 2.

Ayres, W. O. On Caranx symmetricus, A. P. v. 1, p. 64. Rd July 2.

————. On Merlangus productus, A. P. v. 1, p. 65–6. Rd July 16.

Kellogg, A. On Malvastrum splendidum, K. . . . P. v. 1, p. 67–8. Rd July 23.

Ayres, W. O. On Saurus lucioceps, A. P. v. 1, p. 69–70. Rd Aug. 6.

————. On the Echinodermata of the coast of California. P. v. 1, p. 71–2. Rd Aug. 20.

Behr, H. Description of Oxybaphus Froebelli. P. v. 1, p. 72. Rd Aug. 27.

Ayres, W. O. On Torpedo Californica, A. P. v. 1, p. 74–5. Rd Sept. 10.

————. On Notorhynchus maculatus, A. P. v. 1, p. 76–7. Rd Oct. 8.

————. On Calycilepidotus. P. v. 1, p. 81–2. Rd Dec. 24.

1856 Trask, J. B. On earthquakes in California, from 1812 to 1855. P. v. 1, p. 85–8. Rd Jan. 14.

Also in Amer. J. Sc. (1818), v. 72, p. 110–16. July, 1856.

————. Description of a new species of Ammonite and Baculite from the Tertiary rocks of Chico Creek. P. v. 1, p. 92–3, illus. Rd Mar. 17.

————. Description of three new species of the genus Plagiostoma, from the Cretaceous rocks of Los Angeles. P. v. 1, p. 93–4, illus. Rd Mar. 17.

STIMPSON, William. On some Californian Crustacea. P. v. 1, p. 95–9. Rd April 28.

AYRES, W. O. On Scomber Diego, A. P. v. 1, p. 101–2. Rd Oct. 20.

1857 TRASK, J. B. On the earthquakes during 1856. P. v. 1, p. 102–4. Rd Jan. 12.

Also in Amer. J. Sc. (1818), v. 73, p. 341–46. May, 1857.

BLAKE, W. P. Note on the occurrence of telluret of silver in California. P. v. 1, p. 107–8. Rd Feb. 23.

TRASK, J. B. On some new microscopic organisms. P. v. 1, p. 110–12. Rd Mar. 30.

————. Nine new species of Zoophytes from the Bay of San Francisco and locality. P. v. 1, p. 112–15. Rd Mar. 30.

KELLOGG, A., and BEARDSLEY, F. A. On Cupressus fragans, K.; or the fragrant cypress. P. v. 1, p. 115–16. Rd Oct. 5.

VEATCH, J. A. Notes of a visit to the "Mud volcanoes" in the Colorado desert, in the month of July, 1857. P. v. 1, p. 116–21. Rd Dec. 7.

Repr. in Amer. J. Sc. (1818), v. 76, p. 288–95. Sept. 1858.

1858 TRASK, J. B. Earthquakes in California during the year 1857. P. v. 1, p. 121–22. Rd Jan. 11.

KELLOGG, A. Descriptions of new species of plants. P. v. 2, p. 4–6, 8–14. Rd July 26 et seq.

1859 ————. New genera and species of plants found by Dr. J. A. Veatch, at Ceros Island. P. v. 2, p. 15–20, 21–2. 22–5. Rd Sept. 26, Oct. 2 and 10.

AYRES, W. O. On new fishes of this coast. P. v. 2, p. 25–32. Rd Oct. 17.

KELLOGG, A. Description of a very remarkable species of Oenothera, brought from Ceros Island by Dr. J. A. Veatch. P. v. 2, p. 32–3. Rd Oct. 24.

————. Plants from Ceros Island by J. A. Veatch. P. v. 2, p. 33–7. Rd Nov. 14 and Dec. 2.

1860 ————. On a new genus of plants Liliorhiza. P. v. 2, p. 46–8, illus.

————. Descriptions of new species of plants. P. v. 2, p. 48–52. Rd May 7 et seq.

AYRES, W. O. Descriptions of new fishes. P. v. 2, p. 52–64. illus. Rd July 2 et seq.

KELLOGG, A. Descriptions of new plants. P. v. 2, p. 64–72, illus. Rd Sept. 3.

AYRES, W. O. On new species of fishes. P. v. 2, p. 73–86. Rd Oct. 1 et seq.

1861 KELLOGG, A. Description of a species of Polypodium found in the vicinity of San Francisco, springing from the crevices of rocks. P. v. 2, p. 88–91, illus. Rd Jan. 21.

NEWCOMB, [Wesley]. Descriptions of new species of shells. P. v. 2, p. 91–4, 103–4. Rd Feb. 4 and Mar. 18.

KELLOGG, A. Descriptions of new plants. P. v. 2, p. 94–102, 104–18, illus. Rd Feb. 18 et seq.

COOPER, J. G. New Californian animals. P. v. 2, p. 118–23. Rd July 7.

KELLOGG, A. New species of plants. P. v. 2, p. 123–27, 142–55, 158, illus. Rd July 21 et seq.

PUMPELLY, R. Mineralogical sketch of the silver mines of Arizona. P. v. 2, p. 127–39. Rd Aug. 5.

AYRES, W. O. Description of a new ichthyic form from the coast of Lower California. P. v. 2, p. 156–58, illus. Rd Dec. 1.

1862 KELLOGG, A. Descriptions of new species of plants. P. v. 2, p. 163–65, illus. Rd Feb. 3 et seq.
See also p. 161–62.

GABB, W. M. Description of two new species of Pennatulidae from the Pacific coast of the U. S. P. v. 2, p. 166–67. Rd Mar. 3.

BEHR, H. On certain butterflies of California. P. v. 2, p. 167–69. Rd Mar. 17.

GABB, W. M. Descriptions of two new species of Cephalopodes in the Museum of the . . . Academy . . . P. v. 2, p. 170–72. Rd April 7.

BEHR, H. On Californian Argynnides. P. v. 2, p. 172–77. Rd April 21.

BOLANDER, H. N. On the grasses in the Academy's herbarium. P. v. 2, p. 177–78.

————. Descriptions of plants. P. v. 2, p. 179–82, illus. Rd June 2.

KELLOGG, A. Descriptions of new species of plants. P. v. 2, p. 182–98, illus. Rd Aug. 4 et seq.

BLAKE, W. P. On the great trees of Mariposa and other localities in California. P. v. 2, p. 199–201. Rd Nov. 3.

COOPER, J. G. On some new genera and species of California Mollusca collected by him. P. v. 2, p. 202–7. Rd Nov. 3.

AYRES, W. O. On new species of fishes. P. v. 2, p. 207–18, illus. Rd Nov. 3.

WHITNEY, J. D. Which is the highest mountain in the U. S. and which in North America? P. v. 2, p. 219–24. Rd Dec. 15.

KELLOGG, A. Descriptions of new plants. P. v. 2, p. 224–32, illus. Rd Dec. 15.

1863 BOLANDER, H. N. Description of new species of Melica [stricta]. P. v. 3, p. 4–5. Rd Jan. 19.

KELLOGG, A. Description of two new species of plants from Nevada Territory. P. v. 3, p. 9–10, illus. Rd Feb. 16.
Aplopappus Cass., & Mirabilis, Cal.

REMOND, Auguste. Description of two new species of bivalve shells, from the Tertiaries of Contra Costa County. P. v. 3, p. 13. Rd Mar. 2.
Cardium Gabbii & Ostrea bourgeoisii.

————. Description of two species of Scutella. P. v. 3, p. 13–5. Rd Mar. 2.

AYRES, W. O. Remarks in relation to the genus Notorhynchus. P. v. 3, p. 15. Rd Mar. 2.

WHITNEY, J. D. Account of a collection of Japanese minerals and fossils in the possession of J. H. Van Reed. P. v. 3, p. 15–6. Rd Mar. 2.

KELLOGG, A. Description of two new species of Collomia from Nevada Territory. P. v. 3, p. 17–9, illus. Rd Mar. 16.

————. Description of a new genus and species of plant from Nevada Territory. P. v. 3, p. 20–1, illus. Rd April 5.
Pterostephanus K.

COOPER, J. G. On a new Californian Mollusc, Gundlachia Californica. P. v. 3, p. 21–2, illus. Rd April 20.

*BLAKE, James. Infusoria from the moving sands in the neighborhood of San Francisco. P. v. 3, p. 35–6. Rd May 4.

KELLOGG, A. Description of two new species of plants. P. v. 3, p. 36–7, illus. Rd May 4.
Conyza salicena & Collinsia divaricata, K.

————. Description of a new species of Hosackia [argentea]. P. v. 3, p. 38–40, illus. Rd June 1.

————. Description of a new species of Mentzelia [pectinata]. P. v. 3, p. 40–1, illus. Rd June 15.

————. Description of three new plants. P. v. 3, p. 42–4, illus. Rd July 6.
Linum trisepalum, K.; L. decurrens; Silene Dorrii, K.

*BLAKE, James. On the gradual elevation of the land in the environs of San Francisco. P. v. 3, p. 45–6. Rd July 6.

REMOND, Auguste. Description of four new species of Echinodermata, from the Tertiaries of Contra Costa County. P. v. 3, p. 52–4. Rd Aug. 3.

KELLOGG, A. Description of new species of Allium [parvum]. P. v. 3, p. 54, illus. Rd Aug. 3.

Cooper, J. G. On new or rare Mollusca inhabiting the coast of California; no. 2. P. v. 3, p. 56–60, illus. Rd Aug. 17.

Kellogg, A. Description of a new species of Alsine [palustre]. P. v. 3, p. 61. Rd Aug. 17.

Cooper, J. G. On a new genus of terrestrial Mollusca inhabiting California. P. v. 3, p. 62–3, illus. Rd Sept. 7.

Garrett, Andrew. Descriptions of new fishes. P. v. 3, p. 63–6. Rd Sept. 7.

Cooper, J. G. On new genera and species of California fishes; no. 1 and 2. P. v. 3, p. 70–7, 93–7. Rd Nov. 2 and 16.

Bolander, H. N. Enumeration of shrubs and trees growing in the vicinity of the mouth of San Francisco Bay. P. v. 3, p. 78–83. Rd Nov. 16.

Behr, H. On Californian Lepidoptera. P. v. 3, p. 84–93. Rd Nov. 16.

1864 Gray, Asa. Descriptions of new Californian plants, no. 1. P. v. 3, p. 101–3. Rd Jan. 4.

Garrett, Andrew. Descriptions of new species of fishes; no. 2. P. v. 3, p. 103–7. Rd Jan. 4.

Cooper, J. G. On new genera and species of California fishes; no. 3. P. v. 3, p. 108–14, illus. Rd Jan. 4.

Newcomb, W[esley]. Descriptions of nine new species of Helix inhabiting California. P. v. 3, p. 115–19. Rd Jan. 18.

Gabb, W. M. Description of a new species of Virgularia from the coast of California. P. v. 3, p. 120. Rd Feb. 1.

Brewer, W. H. Notice of plants found growing in Hot Springs in California. P. v. 3, p. 120–21. Rd Feb. 1.

Newcomb, W[esley]. Description of a new species of Pedicularia. P. v. 3, p. 121–22. Rd Feb. 1.

Behr, H. On Californian Lepidoptera, no. 4. P. v. 3, p. 123–27. Rd Mar. 7.

Trask, J. B. Earthquakes in California during the year 1863. P. v. 3, p. 127–28. Rd Mar. 7.

————. Earthquakes in California from 1800 to 1864. P. v. 3, p. 130–53. Rd April 18.

Gabb, W. M. On Cretaceous fossils from Sahuaripa Valley, state of Sonora, Mexico, discovered by August Remond. P. v. 3, p. 153–54. Rd May 2.

*Carpenter, P. P. Descriptions of new marine shells from the coast of California, pt. 1. P. v. 3, p. 155–59. Rd July 11.

Behr, H. Notes on Californian Satyrides. P. v. 3, p. 163–66. Rd Sept. 5.

BLAKE, W. P. 1) Note on the fossil remains of the horse and elephant, mingled, at Mare Island, San Francisco Bay; 2) Ammonites or Ceratites from Oregon Bar, middle fork of the American River. P. v. 3, p. 166–167. Rd Sept. 5.

MOORE, G. E. On Brushite, a new mineral occurring in phosphate guano. P. v. 3, p. 167–68. Rd Sept. 5.

Also in Amer. J. Sc. (1818), v. 89, p. 43–4. Jan. 1865.

BLAKE, W. P. Note on the discovery of fossils in the auriferous slate formation of the Mariposa estate, California, and the probable geological age. P. v. 3, p. 170. Rd Oct. 3.

GABB, W. M. 1) Notes on some fossils from the gold bearing slates of Mariposa, with description of some new species; 2) . . . On the San Luis Obispo quicksilver fossils. P. v. 3, p. 172–73; 173–74. Rd Nov. 21.

DANA, J. D. On the crystallization of Brushite. P. v. 3, p. 174–75, illus. Rd Nov. 21.

See also Amer. J. Sc. (1818), v. 89 (ser. 2, v. 39), p. 45–6. Jan. 1865.

*CARPENTER, P. P. On new Californian marine shells; no. 2. P. v. 3, p. 175–77. Rd Nov. 21.

1865 BEHR, H. On Californian Lepidoptera. P. v. 3, p. 178–79. Rd Jan. 9.

NEWCOMB, W[esley]. Description of new species of land shells. P. v. 3, p. 179–82. Rd Jan. 9.

GABB, W. M. Description of new species of marine shells from the coast of California. P. v. 3, p. 182–90. Rd Jan. 9.

TRASK, J. B. Earthquakes in California during 1864. P. v. 3, p. 190–92. Rd Jan. 9.

BLAKE, W. P. 1) New mineral oil regions in the Tulare valley; 2) Note upon the occurrence of sphene in the granite of the Sierra Nevada. P. v. 3, p. 193. Rd Feb. 6.

PREISS, Edward. Euphorbia prostrata as a remedy for the bite of venomous animals. P. v. 3, p. 195–96. Rd Mar. 20.

PEASE, W. H. On the existence of an atoll near the west coast of America and proof of its elevation. P. v. 3, p. 199–201. Rd June 19.

JACKSON, C. T. Big trees of Calaveras County. P. v. 3, p. 204–5. Rd Aug. 7.

CROFT, C. J. The grasses of Arizona. P. v. 3, p. 205–6. Rd Aug. 21.

BLAKE, W. P. Note on the abundance of iron ore in northern Arizona. P. v. 3, p. 206–7. Rd Sept. 4.

*CARPENTER, P. P. Descriptions of new marine shells from the coast of California; no. 3. P. v. 3, p. 207–24. Rd Sept. 11.

BOLANDER, H. N. Remarks on California trees. P. v. 3, p. 225–33. Rd Oct. 16.

CALIFORNIA GEOLOGICAL SURVEYS (1853)

History

The first Geological Survey of California was carried out in a small way under the direction of Dr. John B. Trask, who was requested in March, 1853, to furnish information concerning the geology of the state. Upon submission of his Report on April 6, 1853, he was requested on May 6, 1853, to continue his researches further, under authority from the California legislature.

He submitted reports in 1854 and 1855 on the geology of the Sierra Nevada and the Coast Mountains, and in 1856, on the geology of northern and southern California. The legislature appropriated, according to MERRILL, p. 29 (see Bibliography, below: 1920), $7,000 during the life of the survey under J. B. Trask.

"The Act of the legislature creating the office of State geologist and authorizing a geological survey of the state of California was approved April 21, 1860; but operations were not commenced until about the first of December of that year . . ."

"The plan of the Survey, according to the requirements of the Act by which it was originally organized, demanded:

> 'With the aid of such assistants as he may appoint, to make an accurate and complete geological survey of the state and to furnish in his report of the same proper maps and diagrams thereof with a full and scientific description of its rocks, fossils, soils, and minerals, and of its botanical and geological productions, together with specimens of the same, which specimens shall be properly labelled and deposited in such place as shall be hereafter provided for that purpose by the legislature.'

"Under this Act, the Survey was carried on, with greater or less vigor, according to the varying amounts appropriated by each successive legislature until the spring of the present year (1864), when the act expired by constitutional limitation; the legislature of California having no power to create an office which shall last over four years."

"By an act of the last legislature, however, approved April 4, 1864, the office of the state geologist was again created and filled by the same person who thus far held it . . ." J. D. WHITNEY. 1864. (Palaeontology of Cal.) & 1865, (Report of progress).

Prof. Josiah D. Whitney was appointed state geologist at a salary of $6,000 annually (subsequently, in 1864, raised to $9,000), with W. H. Brewer, William Ashburner and Chester Averill as assistants. Other assistants engaged up to 1866, were C. H. Hoffmann, topographer, and J. G. Cooper, zoologist, in 1861; August Remond and W. V. Wackenreuden as topographer, in 1862; Clarence King and James T. Gardiner as volunteers in 1863. Specimens were described by F. B. Meek, J. S. Newberry, Joseph Leidy, Theodore Gill, A. M. Edwards and P. P. Carpenter.

Whitney delivered several lectures before the legislature and rendered several brief preliminary annual rports. Only two quarto volumes of the contemplated series of final reports were published before 1866. Others based on the work from 1860 on, were published in 1869, 1870, 1876.

Palaeontology was described by F. B. Meek and W. M. Gabb; Birds, by J. G. Cooper, edited and enlarged by S. F. Baird, from Cooper's notes; (collections made 1860–63, by Cooper, assisted by Edward Palmer) ; Botany by Brewer, Asa Gray and Sereno Watson.

For a list of the documents in the California set of state documents concerning the Geological Surveys, see HASSE, (2), pt. 7, California. Dec. 1908, p. 214–15.

For a review of the geology contained in the reports see MERRILL, (1), 435–37, 515–17 and his work noted in the Bibliography: 1920, below (q.v.).

For brief history see also HAYES, 1911, p. 20–1; and the several entries noted in the Bibliography below, the most comprehensive being that, by MERRILL: 1920. See also MERRILL. First 100 ys. Amer. Geol. 1924. p. 303–7, 407–11.

The expenditures of the State Surveys from their origin in 1853 to the close of 1865 were $116,600.

Bibliography

1851 CALIFORNIA. Report on need for a geological survey, reviewing benefits of same, and transmitting bill providing therefor. (In Legisl. Jour. 1851. p. 1689–1702).

1852 ————. Establishment of a geological survey urged. (In Gov.'s Ann. Message 1852).

————. Report of committee on joint resolution to Congress re need of geological survey, showing arguments for . . . inducing Congress to make same. (In Sen. Jour. Appx. 1852. p. 659–65).

1853 ————. Report of public expenditures committee favoring Senate Bill compensating J. B. Trask for his Report on geology of Mineral Districts . . . 5 p. (In Assembly Jour. 4th sess. Doc. 56. appx.).

1864 WHITNEY, J[osiah] D[wight]. History of the survey. Phila. 1864. (In Cal. Geol. Surv. Palaeontology. v. 1, pref. p. 7–20).

Repr. in Cal. Geol. Surv. Geology : v. 1. Phila. 1865. pref. p. 9–27.

1880 BREWER, William Henry. List of persons who have made botanical collections in California. Cambridge, Mass., 1880. (In Cal. Geol. Surv. Botany. v. 2, p. 553–59).

1884 HANKS, Henry G. History of geological surveys of state: 1838–1880. San Francisco, 1884. (In Cal. State Mineralogist. 4th Ann. Rept. 1883–84. p. 21–7).

1889 WILLEY, H[arry] I. Brief summary of status of past surveys, necessity for more methodical and systematic work; scope of present survey . . . San Francisco, 1889. (In Cal. State Mineralogist. 9th Ann. Rept. 1888–89. p. 40–5).

1893 JEPSON, Willis L[inn]. Early scientific expeditions to California. Berkeley, Cal., Sept. 1893 & Nov. 1899. (In Erythea. v. 1, no. 9, p. 185–90; & v. 7, no. 11, p. 129–34).

VOGDES, Anthony Wayne. Geological surveys in the state of California. San Francisco, May 3, 1893. (In Cal. Acad. Sc. Proc. ser. 2, v. 3, p. 325–37).

Enumeration of publications relating to the surveys from their inception.

1903 ————. . . . A bibliography relating to the geology, palaeontology, and mineral resources of California . . . San Francisco & Sacramento, June 30, 1903. 290 p. (In Cal. State Mining Bureau. Bull. no. 30).

First pub. in Bull. no. 10. 1896. 121 p.

For contents, see ANNOTATED BIBLIOGRAPHY, VOGDES, (4).

1905 ————. An address . . . on the books relating to the geology, mineral resources and palaeontology of California. San Diego, Cal., 1905. (In San Diego Soc. Nat. Hist. Trans. v. 1, no. 1, p. 9–23).

1907 ————. A bibliographical sketch of Doctor John B. Trask, first state geologist of California. San Diego, Cal., 1907. (In San Diego Soc. Nat. Hist. Trans. v. 1, no. 2, p. 27–30).

1909 GRINNELL, Joseph. . . . A bibliography of California ornithology . . . Santa Clara, Cal., May 15, 1909. 166 p. (In Cooper Ornith. Club of Cal. Pacific Coast Avifauna. no. 5).

Arranged chronologically.

Second installment to the end of 1923. Berkeley, Calif., 1924. (In Cooper Ornith. Club. Pacific Coast Avifauna. No. 16. 191 p.)

1920 MERRILL, George P[erkins], ed. California geological surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 27–44, port.).

Comprehensive sketch up to 1885.

Reports

1853 TRASK, John B[oardman]. . . . On the geology of the Sierra Nevada or California range. Sacramento, 1853. 31 p.

In Assembly Docs. Sess. 1853; & in Sen. Jour. 4th sess., Appx. Doc. no. 59.

Practically repr. in Mining Mag. (1853), v. 1, p. 6–23. July, 1853.

1854 ————. Report on the geology of the Coast Mountains and part of the Sierra Nevada, embracing their industrial resources in agriculture and mining. Sacramento, 1854. 95 p.

In Sen. Jour. 5th sess., appx. Doc. no. 9.

1855 ————. Report on the geology of the Coast Mountains, embracing their agricultural resources and mineral productions; also, portions of the Middle and Northern Mining Districts. Sacramento, 1855. 94 p.

In Sen. & Ass. Jour. 6th sess., appx. Doc. no. 14.

1856 ————. Report on the geology of northern and southern California, embracing the mineral and agricultural resources of those sections, with statistics of the northern, southern and middle mines. Sacramento, 1856. 68 p.

In Sen. Jour. 7th sess., appx. Doc. no. 14.

1861 WHITNEY, J[osiah] D[wight]. The geological survey of California; an address delivered before the legislature of California, at Sacramento, Tuesday evening, March 12, 1861. San Francisco, 1861. 50 p.

1862 ————. Lecture on geology, delivered before the legislature of California, at San Francisco, Feb. 27, 1862. San Francisco, 1862. 33 p.

In Assem. & Sen. Jour. 13th sess., Doc. no 13. 27 p.

————. Letter of the state geologist, relative to the progress of the state geological survey ((for 1861)). San Francisco, 1862. 7 p.

1863 ————. Annual report of the state geologist of California for the year 1862. San Francisco, 1863. 12 p.

In Sen. Jour. 14th sess., Doc. no. 10.

Rev. in Amer. J. Sc. v. 36 ((ser. 2, v. 36)), p. 118–22. July, 1863, by G. J. Brush.

————. Letter on geology, delivered before the legislature of California at Sacramento, Tuesday evening, March 19, 1863. Sacramento, 1863. 17p.

1864 ————. Annual report of the state geologist for the year 1863. Sacramento, 1864. 7 p.

In Cal. Jour. 15th sess., v. 1, Doc. no. 10.

See also Amer. J. Sc. v. 37 ((ser. 2, v. 37)), p. 427–31. May, 1864.

1864 MEEK, F[ielding] B[radford], and GABB, W[illiam] M[ore]. .. .. .. Palaeontology .. .. .. Phila. Pub. by order of the Legislature, 1864. 20+243+63 p. 32 pl. [298 fig.] 4°. ((Cal. Geol. Surv. Pal. v. 1)).

Preface dated Sept. 1864.

Contents:

pref. p. 7–20	Whitney, J. D. History of the survey.
p. 3– 16, sect. 1	Meek, F. B. Description of the Carboniferous fossils.
p. 19– 35, sect. 2	Gabb, W. M. Descriptions of the Triassic fossils of California and the adjacent territories.
p. 39– 53,	Meek, F. B. Descriptions of the Jurassic fossils.
p. 57–217,	Gabb, W. M. Description of the Cretaceous fossils.
p. 219– 36,	Index of localities of the Cretaceous.
p. 237– 43,	Alphabetical index of genera and species described.

1865 WHITNEY, J[osiah] D[wight]. .. .. .. Geology .. .. .. report of progress and synopsis of the field-work, from 1860 to 1865. Phila. 1865. 27+498 p. illus. pl. ((Cal. Geol. Surv. v. 1)).

Preface dated Nov. 1, 1865.

Contents:

pref. p. 9–27	Whitney, J. D. History of the survey.
pt. 1, p. 1–397	————. Geology of the coast ranges.
pt. 2, p. 399–474	————. Geology of the Sierra Nevada.

appx. A, p. 475–76 ASHBURNER, William. Tabular statement of the principal quartz mills . . . in 1861.

appx. B, p. 477–83 MEEK, F. B. Descriptions of fossils from the auriferous slates of California. 1 pl. [6 fig.]

p. 485–98 Index.

1866 ————. Letter of the state geologist relative to the progress of the state geological survey during the years 1864–65. Sacramento, 1866. 14 p.

In Cal. Journ. 15th sess., v. 1, Doc. no. 10.

1869 GABB, William More. . . . Palaeontology . . . v. 2: Cretaceous and Tertiary fossils. Phila. 1869. 14+299 p. 36 pl. 4°. (Cal. Geol. Surv. Pal. v. 2)

pref. p. 7–14 WHITNEY, J. D. Preface.

p. 1–299 GABB, W. M. Palaeontology.

1870 BAIRD, S[pencer] F[ullerton], and COOPER, J[ames] G[raham]. . . . Ornithology; v. 1: Land birds; edited by S. F. Baird, from the manuscript and notes of J. G. Cooper. Phila. 1870. 11+592 p. illus.

Collections made by Cooper, assisted by Edward Palmer, between 1860 and 1863.

See also Mus. Comp. Zool. Harvard Univ. Mem. v. 12.

1876 BREWER, W[illiam] H[enry]; WATSON, Sereno, and GRAY, Asa. . . . Botany . . . Cambridge, Mass., 1876–80. 2 v. 4°.

v. 1, 20+628 p. 1876.

v. 2, 15+559 p. 1880.

Collections were made during 1860–64. Brewer left California in 1864.

v. 2, p. 553–59 BREWER, W. H. List of persons who have made botanical collections in California.

Papers in Society Transactions

1854 TRASK, J. B. Mineral district of California.
In Mining Mag. (1853), v. 3, p. 121–36, 239–50. 1854.

1855 ————. Mines and mining in California.
In Mining Mag. (1853), v. 5, p. 193–215. Sept. 1855.

1863 WHITNEY, J. D. Progress of the state geological survey.
Rd before Cal. Acad. Nat. Sc. (1853), May 4, 1863. In its Proc. v. 3, p. 23–9.

1864 ————. Progress of the Geological Survey of California.
In Amer. J. Sc. (1818), v. 87 (ser. 2, v. 37), p. 256–64, 298. Mar. & May, 1864.

GILL, Theodore. Description of a new generic type of Pleuronectoids in the collection of the Geological Survey of California.

Rd before Phila. Acad. Nat. Sc. (1812), Sept. 20, 1864. In its Proc. v. 16, p. 198–99.

1865 WHITNEY, J. D. Notice of the explorations of the Geological Survey of California, in the Sierra Nevada, during the summer of 1864.

In Amer. J. Sc. (1818), v. 89, (ser. 2, v. 39), p. 10–3. Jan. 1865.

GRAY, Asa. Characters of some new plants of California and Nevada, chiefly from the collections of Prof. W. H. Brewer, botanist of the State Geological Survey of California, and of Dr. C. L. Anderson, with revisions of certain groups.

Rd before Amer. Acad. A. & Sc. (1780), May 30, 1865. In its Proc. v. 6, p. 519–56.

ELLIOTT SOCIETY OF NATURAL HISTORY, CHARLESTON, S. C. (1853)

History

"This Society, recently formed in this city, is so called in compliment to a distinguished naturalist and scholar, the late Stephen Elliott of Charleston . . .

"The objects of the Society may be gathered from the following introduction to their By-Laws:

> 'The advancement of useful knowledge is undoubtedly the leading spirit of the age, and as the principle of association is one of power, success, utility, Societies have been formed in most of the large cities of the civilized world for this object, and their efforts have been crowned with the most flattering success . . .
>
> 'Among the pioneers for the advancement of science and literature, and especially of natural history in North America, the most prominent were Charlestonians . . . the names of Garden, Elliott, Ramsay, Grimke and others . . . and have thereby become the common property of the world.'

"Influenced by these considerations, and with a view not only to the improvement of ourselves, but also to unite our feeble in-

dividual efforts, more effectually to extend the knowledge we may acquire thereby, we whose signatures are hereunto affixed, do pledge ourselves individually to follow the following rules and regulations for the government of an association hereby formed, for the developing the natural history of our country, and especially of our own state, and for cultivating and promoting the study of science." From CHARLESTON MED. JOUR. v. 8, p. 860–61. Nov. 1853.

The officers at the founding of the Society in 1853, were Dr. John Bachman, president; L. R. Gibbes, E. Geddings, S. H. Dickson, James Moultrie, Wm. Hume, and Edmund Ravenel, vice-presidents; F. S. Holmes, secretary; S. W. Barker, T. L. Burden, J. P. Chazal, L. A. Frampton, P. C. Gaillard, J. F. M. Geddings, John McCrady, W. Wragg Smith, Robert Hume, G. E. Manigault, St. Julien Ravenel, H. W. Ravenel, F. P. Porcher, M. Michel, Francis T. Miles, curators.

In June, 1853, L. R. Gibbes was elected president, and served continuously to 1889, with the exception of 1857–58, when James Moultrie was presiding officer. J. E. Holbrook joined the Society in Nov., 1853.

In December, 1859, the Society received $500 from the state legislature. The meetings of the Society were interrupted by the outbreak of the Civil War, from Dec. 15, 1860, to Feb. 14, 1866. The collections, papers and much of the other property belonging to the Society were destroyed by the army under Gen. Sherman. Sixteen members of the Society lost their lives in the war (See Proc. v. 2, p. 59).

The first volume of the Proceedings of the Society covering the years 1853–58 was published in 1859; the first volume of the Journal, in three numbers, was published in 1859–60, the further publication of which was prevented by the Civil War. The second volume of the Proceedings appeared at intervals between 1859 and 1890 under the newly adopted name of the Society, the ELLIOTT SOCIETY OF SCIENCE AND ART. (See Bibliography below).

For dates of publication of various parts, see PROCEEDINGS (P), and JOURNAL (J): Dates of publication, below. For a list of the papers read before the Society arranged in chronological order by date of reading, see below PAPERS ON NATURAL HISTORY.

Bibliography

1857 ELLIOTT SOCIETY OF NATURAL HISTORY. Constitution and by-laws . . . February, 1857. Charleston, S. C. 1857. 30 p.

p. 25–30, List of specimens presented through the Elliott Society to the Museum of the College of Charleston. See Charleston Mus. (1773).

1859 ELLIOTT SOCIETY OF NATURAL HISTORY. . . . Proceedings . . . of the . . . of Charleston, S. C. Charleston, S. C., Russell & Jones; N. Y., H. Bailliere, 1859. (v. 1). 4+294+7 p. 14 pl.

Covers period Nov. 1853–Dec. 1858.

————. . . . Journal . . . Charleston, S. C., 1859–60. 1 v. (3 nos), [115 p.]. 4°.

1890 ELLIOTT SOCIETY OF SCIENCE AND ART. . . . Proceedings of the. . . of Charleston, S. C. . . . v. 2. Charleston, S. C., 1890 (1870–90). 248 p.

Covers Proceedings for period Feb. 1, 1859–Nov. 1890. but first signature appears to have been pub. in 1870. See below PROCEEDINGS: Dates of publication.

Proceedings (P)

v. 1, for Nov. 11, 1853–Dec. 1858, pub. 1859.

v. 2, for Feb. 1, 1859–Nov. 1890, pub. 1870–90.

(p. 1–46, deal with period 1859–65.)

p. 1– 8, 9–16 pub. July 6, 1870.
p. 17–24 " July , 1885.
p. 25–32 " Aug.
p. 33–40 " Sept.
p. 41– 8 " Oct.

Journal (J)

v. 1, art. 1, 1859, p. 1– 42, see W. W. Smith, 1857, below.
art. 2, 1859, p. 43–100, see W. H. Ford, 1858, below.
art. 3, 1860, p. 101– 15, see John McCrady, 1860, below.

Papers on Natural History

1853 AGASSIZ, Louis. Letter . . . [from . . . on fossil shark of the Tertiary of S. C.] P. v. 1, p. 2. Rd Nov. 1.

1854 GIBBES, L. R. Description, with figures, of six species of Porcellana, inhabiting the eastern coast of North America. P. v. 1, p. 6–13, illus. Rd Jan. 18.

HOLMES, F. S. Descriptions of new fossil Balani from the Eocene marl of Ashley River, S. C. P. v. 1, p. 21, illus. Rd June 6. (Ordered pub. Mar. 6, 1855.)

GIBBES, L. R. Monograph of the genus Cryptopodia. P. v. 1, p. 32–9, illus. Rd June 6.

1855 HOLMES, F. S. Description of a new species of Ostrea found living in the waters of the coast of South Carolina. P. v. 1, p. 29. Rd June 6.
O. triangularis.

LEE, J. "On the red, or rather yellow locust." P. v. 1, p. 23–4, 50. Rd July 24.

1856 HOLMES, F. S. Contributions to the natural history of the American devil-fish, with descriptions of a new genus from the harbour of Charleston, South Carolina. P. v. 1, p. 39–46. Rd June 11.

RAVENEL, H. W. Notice of some new and rare phaenogamous plants found in this state. P. v. 1, p. 50–4. Rd Nov. 14.

MCCRADY, John. Description of Oceania (Turritopsis) nutricula nov. spec. and the embryological history of a singular Medusan larva found in the cavity of its bell. P. v. 1, p. 55–90, 7 pl. [42 fig.] Rd Dec. 1.

GIBBES, L. R. On some points which have been overlooked in the past and present conditions of Niagara Falls. P. v. 1, p. 91–100, sect. Rd Dec. 15.

1857 MCCRADY, John. Gymnopthalmata of Charleston harbor. P. v. 1, p. 103–221, 5 pl. [45 fig.] Rd April 15.
See also P. v. 2, p. 7.

————. On the history of specific form. P. v. 1, p. 222–23. Rd May 15.

————. Observations on the embryology of Bolina from Charleston Harbor. P. v. 1, p. 223–24. Rd June 1.

SMITH, W. W. Flora of the low country of South Carolina reviewed. J. v. 1, art. 1, 41 pl. Rd July 1, Aug. 1, and Dec. 1.
Not pub. until 1859.

GIBBES, L. R. Description of Ranilia muricata Milne Edwards. P. v. 1, p. 225–36, 1 pl. Rd July 15.

MCCRADY, John. On the development of two species of Ctenophora found in Charleston Harbor. P. v. 1, p. 254–71, 1 pl. [14 fig.] Rd Aug. 1.

FRAMPTON, L. A. On an Orthoceras from Minnesota. P. v. 1, p. 237–38. Rd Aug. 15.

MCCRADY, John. On the Medusae found at Bay Point Island, at the mouth of Port Royal Harbor, S. C. P. v. 1, p. 239–40. Rd Sept. 1.

GIBBES, L. R. Botany of Edings' Bay. P. v. 1, p. 241–48. Rd Oct. 15.

1858 ————. On the representatives of the genus Cactus in this state. P. v. 1, p. 272–73. Rd Jan. 15.

McCrady, John. Instance of incomplete longitudinal fission in Actinia cavernosa, Bosc. P. v. 1, p. 275–78, illus. Rd Feb. 15.

————. On the Eocene formation in the neighborhood of Alligator, Fla. P. v. 1, p. 282–83. Rd May 1.

Ravenel, E[dmund]. Description of three new species of Univalves recent and fossil. P. v. 1, p. 280–82. Rd May 1.

Ford, W. H. Normal presence of alcohol in the blood. J. v. 1, art. 2, 57 p. (p. 43–100). Rd May 15.

Not pub. until 1859.

Gibbes, L. R. Notice of the phenomena attending the shock of the earthquake of Dec. 19, 1857. P. v. 1, p. 288–89. Rd Sept. 1.

1859 McCrady, John. On the earthquake shock felt in Charleston, Dec. 19, 1857. P. v. 2, p. 1–2. Rd Feb. 1.

————. Some remarks on Liriopsis scutigera. P. v. 2, p. 6. Rd June 15.

Gibbes, L. R. . . . Remarks on a journey in Virginia from Richmond to the Springs. P. v. 2, p. 7–8. Rd July 15.

McCrady, John. Remarks on the caves near Clarkesville, Tennessee. P. v. 2, p. 10–2, illus. Rd Nov. 15.

1860 Smith, W. W. Autumn coloring, fall of the leaf, and winter habits of trees and shrubs in the lower country of South Carolina. P. v. 2, p. 14–9. Rd Feb. 1.

McCrady, John. On the leech. P. v. 2, p. 21. Rd April 2.

————. On a new species of Cheirocephalus, found in a pond on Charleston Neck. P. v. 2, p. 22–3. Rd April 16.

Ravenel, Edmund. On Hirudo? P. v. 2, p. 24. Rd May 1.

Geddings, J. F. M. On a specimen of Ophiosaurus ventralis. P. v. 2, p. 27. Rd Aug. 15.

McCrady, John. The law of development by specialization: a sketch of its probable universality. J. v. 1, art. 3, 15 p. (p. 101–15.) Rd Oct. 1.

"The publication of this paper is interrupted by the political crisis in America, but will be resumed as soon as practicable." Note, p. (15). Dec. 14, 1860.

Ravenel, Edmund. The limestone springs of St. John's, Berkeley, and their probable availability for increasing the quantity of fresh water in Cooper River. P. v. 2, p. 28–32. Rd Oct. 15.

Porcher, F. P. On the similarity of the flora of Powhatan County, Virginia, with that of Fairfield District, S. C. P. v. 2, p. 28. Rd. Oct. 15.

Records destroyed by Gen. Sherman's Army.

Forster, A. M. Rice culture in South Carolina. P. v. 2, p. 40–6. Rd. Oct. 15.

RAVENEL, Edmund. Tellinidae of South Carolina. P. v. 2, p. 33–40. Rd Dec. 15.

JOHNSON, Benjamin. List of addenda to the Botany of Edings' Bay, S. C. P. v. 2, p. 46. Rd Dec. 15.

GIBBES, L. R. Rules for the accentuation of names in natural history, with examples zoological and botanical . . . Charleston, S. C., Russell & Jones, 1860. 13 p.
Preface dated Jan. 15, 1857.

FLINT SCIENTIFIC INSTITUTE, FLINT, MICH. (1853)

History

The Flint Scientific Institute at Flint, Michigan, was organized early in 1853 and incorporated Feb. 3, 1853. Its chief object was the study and pursuit of the natural sciences, with especial emphasis on natural history.

The officers elected were D. Clarke, president; F. H. Rankin, secretary; Manly Miles, librarian. The most active members during the period of organization, were in addition to the above named: R. S. Hutton, C. L. Avery, William Stevenson, A. B. Pratt and S. E. Wilcox.

The Institute had a very active career up to the outbreak of the Civil War. Large natural history collections were assembled and a special building rented to house them. Numerous lectures on natural history matters were given annually. An excellent account of these activities may be found in the article by ELLIS (see Bibliography, below). Miles served in 1859–60 as assistant in zoology to Prof. Alex. Winchell in his Survey of the state of Michigan.

Bibliography

1857 FLINT SCIENTIFIC INSTITUTE. Constitution . . . Flint, Mich., F. H. Rankin, printer, 1857. 16 p.
Copy examined at Library of Congress.

1879 ELLIS, Franklin. The Flint Scientific Institute. (In his History of Genesee County, Michigan. Phila. 1879. p. 148–51).

FLORIDA GEOLOGICAL SURVEY (1853)

History

" . . . In 1853 the General Assembly of Florida passed an act establishing the office of state engineer and geologist. The geologic

part of the work, however, seems not to have been provided for. The first report of the state engineer and geologist [F. L. Dancy] comprises p. 19–36 of 'Documents accompanying the message of the governor of Florida' submitted November 28, 1854. That part of the Report relating to geology occurs on page 20 of the Appendix and reads as follows:

'On the subject of the geology of the state, I have made no report, from the fact that the General Assembly failed to specify any appropriations to defray any expenses incurred in reference to the matter. Consequently nothing has been done by me, except to obtain specimens of soils and minerals from the various localities (where marked changes were perceptible) visited by me in the performance of duties as engineer.'

The office of state engineer and state geologist was abolished by an act of the legislature of 1855.'' SELLARDS, E. H., p. 62 (see Bibliography, 1908, below) and HAYES, 1911, p. 34–5. (U. S. Geol. Surv. Bull. no. 465).

Bibliography

1908 SELLARDS, E[lias] H[oward]. Geological investigations in Florida previous to the organization of the present Geological Survey. Tallahassee, 1908. (In Florida Geol. Surv. 1st Ann. Rept. 1907–8. p. 54–72).

————. Bibliography of Florida geology. Tallahassee, 1908. (In Florida Geo. Surv. 1st Ann. Rept. p. 73–108).
212 entries arranged alphabetically by authors.

1920 MERRILL, G[eorge] P[erkins], ed. Florida Geological Surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 53–5).

ILLINOIS STATE AGRICULTURAL SOCIETY (1853)

History

The Illinois State Agricultural Society was organized on January 5, 1853. Although not especially devoted to natural history subjects, a number of natural history papers were published in its Transactions.

Its Transactions also served for a time as the medium of publication for the papers read before the Illinois Natural History Society, Bloomington (1858), q.v.

Below is given a list of the papers read before the Agricultural Society, but not including those read before the Natural History Society, which will be found under that Society itself.

Bibliography

1855 ILLINOIS STATE AGRICULTURAL SOCIETY. Transactions of the . . . Springfield, Illinois, 1855–date. v. 1–date.

Transactions (T)

v. 1, for 1853–55, pub. 1855
2, " 1856–57, " 1857
3, " 1858–59, " 1859
4, " 1859–60, " 1861
5, " 1861–64, " 1865
6, " 1865–66, " 1868

Papers on Natural History

1855 ROE, E. R. Origin and character of our prairie soils. T. v. 1, p. 507–9.

HOY, P. R. The seventeen year cicada. T. v. 1, p. 510–13.

LE BARON, William. Observations upon some of the birds of Illinois most interesting to the agriculturist. T. v. 1, p. 559–65.
Written Dec. 1854.

KENNICOTT, Robert. Catalogue of animals observed in Cook County, Illinois. T. v. 1, p. 577–95.

PRATTEN, Henry. Catalogue of the birds of Illinois. T. v. 1, p. 596–609.

ULFFERS, H. A. Mollusca of southern Illinois. T. v. 1, p. 610–12.

1857 LAPHAM, I. A. Catalogue of the plants of the state of Illinois. T. v. 2, p. 492–550.

————. The native, naturalized and cultivated grasses of the state of Illinois. T. v. 2, p. 551–613, 4 pl. [42 fig.]

KENNICOTT, Robert. The quadrupeds of Illinois, injurious and beneficial to the farmer. T. v. 2, p. 615–84, 10 pl.
From Patent Office Report for 1856, p. 52–110, pl. 5–15. Cont. in Report for 1857, p. 72–107, 1 pl. & for, 1858, p. 241–56.

1859 BRENDEL, Frederick. Additions and annotations to Mr. Lapham's catalogue of Illinois plants. T. v. 3, p. 583–85.

BEBB, M. S. List of plants occurring in the northern counties of the state of Illinois, in addition to the catalogue given by Dr. I. A. Lapham. T. v. 3, p. 586–87.

BRENDEL, Frederick. The trees and shrubs in Illinois. T. v. 3, p. 588–604.
Cont. in T. v. 4, p. 404–13, 10 pl. 1861.

————. The oaks of Illinois. T. v. 3, p. 605–9, 12 pl.

1862 THOMAS, Cyrus. Insects injurious to vegetation in Illinois. T. v. 5, p. 401–68.

WORTHEN, A. H. Familiar letters on geology. T. v. 5, p. 624–43.

MINING MAGAZINE (1853)

History

The MINING MAGAZINE, devoted primarily to mines and allied subjects, made its first appearance in July, 1853. It was edited and conducted by William J. Tenney, assisted part of the time by August Partz, and Stephen P. Leeds. It contained a large number of geological reports of private mines, etc., excerpts from state geological reports, and reprints of articles from the AMERICAN JOURNAL OF SCIENCE (1818), and other scientific publications. It appeared monthly; two issues were sometimes combined in one.

Upon the completion of the ninth volume, it was taken over and conducted by Thomas McElrath, the first number under his supervision appearing in January, 1858. Only two volumes were published under the title: MINING AND STATISTIC MAGAZINE.

With the appearance of v. 11, no. 1, July, 1858, the name was changed to MINING MAGAZINE & JOURNAL OF GEOLOGY, MINERALOGY, etc., under the editorship of W. P. Blake. After two volumes were issued, it suspended publication.

Bibliography

(A) v. 1–9.

1853 (THE) MINING MAGAZINE; devoted to mines, mining operations, metallurgy, etc.; edited and conducted by William J. Tenney. New York, 1853–57. 9 v. illus. pl. plans.

v. 2, TENNEY aided by August PARTZ; v. 3, by PARTZ & S. P. LEEDS; v. 4, by LEEDS.

v. 1, no. 1, July, 1853; v. 9, no. 6, Dec. 1857.

Continued under the title:

(B) v. 10–11.

1858 (THE) MINING AND STATISTIC MAGAZINE; devoted to mines, mining operations, metallurgy, etc.; edited and conducted by Thomas McElrath. New York, Jan.–Dec. 1858. 2 v. illus pl. plans.

Continued under the title:

(C) (v. 12–13).

1859 (THE) MINING MAGAZINE AND JOURNAL OF GEOLOGY, MINERALOGY, METALLURGY, CHEMISTRY AND THE ARTS, in their applications to mining and working useful ores and metals; edited by William P. Blake. New York & New Haven, 1859–61. 2 v. illus. pl. plans.

Being the continuation of the MINING AND STATISTIC MAGAZINE, from ser. 2, v. 1, no. 1, Nov. 1859–July, 1860.

Papers on Natural History

1853 **v. 1, no. 1, July, p. 1–98**

TRASK, J. B. Geology of the Sierra Nevada, or California range. art. 2, p. 6–23.

See also CALIFORNIA GEOL. SURV. (1853.)

ANON. The mines and mineral resources of America. art. 3, p. 23–7. Cont. in next no., below.

HODGE, J. T. Report on the mining properties of the Shelburne Lead Mining Compny, at Shelburne, N. H. art. 4, p. 27–34.

v. 1, no. 2, August, p. 99–216

ANON. The mines and mineral resources of America. art. 2, p. 109–13. Cont. from preceding no., (q.v); Also cont. in next no., below.

WHITNEY, J. D. Mineral tract of the East Tennessee and Cherokee Mining Company. art. 3, p. 114–21, illus.

ANON. Quartz mining operations in California. art. 7, p. 144–50.

v. 1, no. 3, September, p. 217–330

SILLIMAN, Benjamin, Jr. Report on the Manassas Mining property. art. 2, p. 228–31.

ANON. The mines and mineral resources of America. art. 3, p. 232–35. Cont. from preceding no.; & cont. in following no.

JACKSON, C. T. Shelburne lead mines. art. 5, p. 245–50.

SILLIMAN, Benjamin, Sr. Particulars relative to the lead-mine near Northampton, Mass. art. 7, p. 256–61.

Repr. from AMER. MINER. JOUR. (1810), v. 1, no. 2, art. 12, p. 63–9. (Jan. 1811?)

1853 **v. 1, no. 4, October, p. 331–446**

ANON. The mines and mineral resources of America. art. 2, p. 347–51. Cont. from preceding no., (q.v.)

JOHNSON, W. R. The coal lands of the Deep River Mining Company in North Carolina, with analyses of the minerals. art. 3, p. 352–65.

ROGERS, H. D. Report on the Wheatley and Brookdale mines, Chester Co., Pa. art. 6, p. 375–87.

v. 1, no. 5, November, p. 447–558

TENNEY, W. J. The silver of the Lake Superior mineral region. art. 1, p. 447–54.

HODGE, J. T. Report of the Lycoming Iron and Coal Company. . . . July 6, 1853. art. 2, p. 455–68.

ANON. The property of the Short Mountain Coal Company situated in Lykens Valley, Pa. art. 3, p. 468–76.

JACKSON, C. T. Report on the Dolly Hide copper mine. art. 4, p. 476–80.

RICHARDSON, C. S. Views on American mines and minerals. art. 7, p. 489–96.

v. 1, no. 6, December, p. 559–672 + 4 p.

HITCHCOCK, Edward. The coal fields of Bristol County, and of Rhode Island. art. 3, p. 582–91.

Rept. made to Mass. Legislature, Feb. 23, 1853. See also MASS. GEOL. SURV. (1830). Repr. in Amer. J. Sc. (1818), v. 66 (ser. 2, v. 16), p. 327–36. Nov. 1853.

SHEPARD, C. U. Report on the Sumner, Hipp, Fulwood and Lemons mines of North Carolina. art. 4, p. 591–97.

Originally pub. in 1835, separately.

1854 **v. 2, no. 1, p. 1–118, January**

RICHARDSON, C. S. Northampton district: the Loudville mine. Art. 2, p. 13–20, illus.

WADDINGTON, Alfred. Lodes and quarts veins of gold. art. 3, p. 21–4.

JACKSON, C. T. Moore's gold mines, Dahlonega, Ga. art. 4, p. 24–7.

LEEDS, S. P. Notes on the gold regions of North and South Carolina, taken during a four months' residence. art. 5, p. 27–34.

v. 2, no. 2, February, p. 119–236

RICHARDSON, C. S. The cobalt and nickel mines in Chatham, Conn. art. 2, p. 124–28.

PHILLIPS, J. V. The geology of the Upper Mississippi lead region. art. 3, p. 129–38, illus.

HODGE, J. T. The Ulster lead mines. . . . art. 4, p. 138–49, illus.

v. 2, no. 3, March, p. 237–354

*CALLENDER, J. A. The Lake Superior copper mines. art. 3, p. 249–53.

JACKSON, C. T. The coal lands of Egypt, Belmont, Evans, Palmer and Wilcox plantations on Deep River, N. C. art. 4, p. 253–64.

RICHARDSON, C. S. The slate quarries in Vermont. art. 6, p. 271–82.

v. 2, no. 4, April, p. 355–472

LEEDS, S. P. Notes on the gold region of North and South Carolina; taken during a four months' residence: no. 2. art. 1, p. 357–69.

Previous part in Jan. no., (q.v. above)

ROGERS, H. D. The Lackawanna coal basin: its geology and mining resources around Scranton, Pa. art. 4, p. 388–95.

Cont. in next no., (q.v.)

RICHARDSON, C. S. Northampton district: the Williston lead and copper mine. art. 5, p. 395–96.

Concl. in June no. (below, q.v.)

v. 2, no. 5, May, p. 473–590

ROGERS, H. D. The Lackawanna coal basin . . . (cont.) art. 1, p. 475–90.

First pt., in previous no.; next, in following no.

RICHARDSON, C. S. The Hartford County Mining Company's property at Bristol, Conn. art. 2, p. 490–93, pl. sect.

DANIELS, Edward. Lead veins of Wisconsin. art. 3, p. 493–506.

Abstr. from Rept. in WISCONSIN GEOL. SURV. (1853), q.v.

LEEDS, S. P. The Rudisel gold and copper mine of North Carolina. art. 5, p. 516–18.

1854 **v. 2, no. 6, June, p. 591–710 + 7 p.**

SILLIMAN, Benjamin, Jr. Notice of the mineralogical collection in the Crystal Palace. art. 1, p. 593–609.

ROGERS, H. D. The Lackawanna coal basin . . . (cont.) art. 2, p. 609–20.

Previous pt. in preceding no., (q.v.)

SHEAFER, P. W. Description of the geology of Schuylkill County, Pa. art. 4, p. 626–30, map.

PERCIVAL, J. G. The Hazelgreen mine, Wisconsin—its geological aspect. art. 5, p. 631–32, map.

RICHARDSON, C. S. The Northampton district . . . (concluded). art. 7, p. 634–36.

Previous pt. in April no., (above, q.v.)

v. 3, no. 1, July, p. 1–118

ELLERY, J. G. The property of the Catawba Mining Company, in McDowell County, N. C. art. 2, p. 15–25.

LIEBER, O. M. A sketch of the geology of the state of Mississippi. art. 5, p. 41–7, map.

See also MISSISSIPPI GEOL. SURV. (1850)

v. 3, no. 2, August, p. 119–236

TRASK, J. B. Mineral district of California. art. 1, p. 121–36.

Cont. in next no. (q.v.) See also CALIFORNIA GEOL. SURV. (1853)

PARTZ, August. Examination and explorations on the gold-bearing belts of the Atlantic states . . . art. 4, p. 161–68, map.

v. 3, no. 3, September, p. 237–352

TRASK, J. B. Mineral district of California. art. 1, p. 239–50.

Cont. from preceding no., (q.v. above)

RICHARDSON, C. S. The Old Bristol Copper Mine, Connecticut. art. 2, p. 251–55.

v. 3, no. 4, October, p. 353–464

ROGERS, W. B. The property of the Pridevale Iron Company. art. 1, p. 355–70.

Cont. in following no.

v. 3, no. 5 & 6, Nov. & Dec. p. 465–584 + 6 p.

RICHARDSON, C. S. The Great Silver Lead Mine, Shelburne, New Hampshire. art. 4, p. 481–89.

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Also in Amer. J. Sc. (1818), v. 70 (ser. 2, v. 20), p. 53–7. July, 1855.

BLAKE, W. P. Observations on the extent of the gold region of California and Oregon. art. 4, p. 32–45.

Also in Amer. J. Sc. (1818), v. 70 (ser. 2, v. 20), p. 72–85. July, 1855. See also Pacific RR. Surv. (1853), v. 5, Williamson's Exped.

LESLEY, J. P. The Cumberland coal fields, Tennessee. art. 5, p. 45–52, illus.

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Cont. from v. 4, no. 5 (above, q.v). Cont. below, in next no. See also WISCONSIN GEOL. SURV. (1853)

ROGERS, W. B. The relations of the "New Red Sandstone" of the Connecticut Valley and the coal-bearing rocks of eastern Virginia and North Carolina. art. 3, p. 128–32.

Rd before Bost. Soc. Nat. Hist. (1830), Jan. 4, 1854. In its Proc. v. 5, p. 14–8. Also in Amer. J. Sc. (1818), v. 69 (ser. 2, v. 19), p. 123–25. Jan. 1855.

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Rd before Bost. Soc. Nat. Hist. (1830), Oct. 3, 1855. In its Proc. v. 5, p. 242–50.

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WHITNEY, J. D. Notice of new localities, and interesting varieties of minerals, in the Lake Superior region, supplementary to the chapter on this subject, in part 2, of the Report of Foster & Whitney. art. 5, p. 32–47.

Also in Amer. J. Sc. (1818), v. 78 (ser. 2, v. 28), p. 8–20. July, 1859. See also FOSTER & WHITNEY'S SURV. LAKE SUPERIOR LAND DIST. (1849): (2).

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LIEBER, O. M. Petrology and metamorphism. art. 3, p. 111–25.

Abstr. from 4th Rept. 1860 of S. C. GEOL. SURV. (1825).

GENTH, F. A. Observations on the occurrence of gold. art. 6, p. 147–50.

Also in Amer. J. Sc. (1818), v. 78 (ser. 2, v. 28), p. 253–56. Sept. 1859.

1860 **ser. 2, v. 1, no. 3, January, p. 169–248**

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LESQUEREUX, Leo. On the formation of coal. art. 2, p. 264–84.

From Rept. 1861 of KENTUCKY GEOL. SURV. (1854) q.v.

WHITNEY, J. D. The lead deposits of the Mississippi Valley. art. 4, p. 287–99.

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Repr. from his "Report on Ducktown copper regions. . . ." Charleston, S. C. 1859.

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BLAKE, W. P. The Wheatley silver lead mines. art. 1, p. 411–18.

————. Report upon the zinc ore of Bald Hill, Union Co., Tenn. art. 2, p. 419–27.

PETHERICK, Thomas. Report upon the Silver Hill Mine, Davidson Co., N. C. art. 3, p. 428–35.

WHITNEY, J. D. Note on the geological position of the Lake Superior sandstone. art. 4, p. 435–36.

BLAKE, W. P. Report upon the Cherokee gold mine. art. 6, p. 453–57, map.

————. Report upon the Hendricks gold lots, Lumpkin Co., Ga. art. 7, p. 457–61, map.

————. Report upon the property of the Valley River Gold Company. art. 8, p. 461–66, map.

MISSOURI GEOLOGICAL SURVEY (1853)

History

"On the 12th day of April last (by virtue of an act approved Feb. 24, 1853), I had the honor of receiving a commission from the governor of Missouri, directing me to make:

> " 'A thorough geological and mineralogical survey of this state, with a view to determine the order, succession, arrangement, relative position, dip, or inclination, and comparative magnitude of the several strata, or geological formations within the state; and to discover and examine all beds or deposits of ore, coal, marls and such other mineral substances and mineral waters as may be useful or valuable; and to perform such other duties as may be necessary to make a full and complete geological and mineralogical survey of the state.'

"On April 15, I appointed Dr. A. Litton, chemist; R. B. Price, draughtsman; on May 24, Frederic Bass, assistant; in the fall, B. F. Shumard . . ." G. C. SWALLOW.

During the period of the survey which lasted from 1853 to the outbreak of the Civil War, Swallow was assisted by A. Litton (1853–61), B. F. Shumard (1853–58), F. B. Meek (1855), G. C. Broadhead (1857–61), A. Ulffers (1854, 1860), C. G. Wheeler (1860), P. C. Swallow (1857–61), R. B. Price (1853–58), W. Hough (1857), Frederick Hawn (1854), Henry Engelmann

(1857), J. G. Norwood (1858–61), Dr. John Locke (1860), Daniel Crosby and Edward Harrison.

According to MERRILL (see Bibliography; 1920, below), the expenses of the survey for the nine years of its existence was $105,000. Reports were issued in 1854, 1855, 1857, 1859 and 1861. See also below the Bibliography, and the PAPERS IN SOCIETY TRANSACTIONS, for preliminary papers often issued before the Reports, descriptive of the collections, etc.

The Western Journal & Civilian, a technical journal published in St. Louis, and the Historical and Philosophical Society of the state of Missouri (1844), q.v., were early active advocates of a state geological survey and were instrumental in bringing it about.

See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 307–8.

Bibliography

1849 HISTORICAL AND PHILOSOPHICAL SOCIETY OF MISSOURI. Memorial of the . . . on the subject of a geological survey of the state, to the General Assembly of Missouri . . . Jefferson City, Mo., 1849. 13 p. (In House Jour., 15th sess. Gen. Assembly. appx. p. 175–87).

Signed by Messrs. Falkland, H. Martin, Sol. D. Carruthers, S. T. Glover, W. G. Minor, De Witt C. Ballou.

1851 PROUT, Hiram A. The advantages of a geological survey of the state of Missouri. St. Louis, 1851. 30 p.

Rev. in Amer. J. Sc. v. 61, (ser. 2, v. 11), p. 300. Mar. 1851.

1855 SWALLOW, George Clinton. What was known of our geology. Jefferson City, 1855. (In his First & second Ann. Rept. Geol. Surv. Mo. pt. 2, appx. A, p. 209–12).

1873 PUMPELLY, Raphael. Geological Survey of Missouri. N. Y. 1873. (In his Preliminary Rept. Geol. Surv. Mo. 1872. pref. p. 7–14).

1886 BROADHEAD, G[arland] C[arr]. Missouri geological surveys: historical memoir. St. Louis, Mar. 1, 1886. (In Acad. Sc. St. Louis. Trans. v. 4, p. 611–24).

1890 SAMPSON, F[rancis] A[sbury]. . . . A bibliography of the geology of Missouri. Jefferson City, Mo., 1890. 158 + 18 p. (In Missouri Geol. Surv. Bull. no. 2).

Annotated list of 810 titles arranged by organs of publication, with author, subject and chronologic indexes.

1892 WINSLOW, Arthur, and MARBUT, C[urtis] F[letcher]. The mapping of Missouri. St. Louis, Sept. 1892. (In Acad. Sc. St. Louis. Trans. v. 6, p. 57–99, map).
Rd before the Academy, May 16, 1892.

1894 WINSLOW, Arthur. Geological surveys in Missouri. (In Jour. Geol. v. 2, no. 2, p. 207–21. Feb.–Mar. 1894).

1901 BROADHEAD, G[arland] C[arr]. Geological surveys of Missouri. N. Y. Southern hist. co., 1901. (In Encyclopaedia of history of Mo. v. 3, p. 27–31).

1907 WIDMANN, Otto. A preliminary catalog of the birds of Missouri [history]. St. Louis, 1907. (In Acad. Sc. St. Louis. Trans. v. 17, p. 2–4).
History, p. 2–4. Rd before Academy, May 21, 1906.

1920 MERRILL, George P[erkins], ed. Missouri geological surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 274–90, port.).
History of the state surveys prior to 1885.

Reports

1854 SWALLOW, George Clinton. Report on the geological survey of the state . . . Jefferson City, 1854. 4 p.
Made Nov. 10, 1853.

1855 ————. The first and second annual reports of the geological survey of Missouri. Jefferson City, Mo., 1855. 207+240 p. illus. 15 pl. maps, sect. tab.
Preface dated Sept. 1855. Rev. in Mining Mag. v. 6, p. 300–3. Apr. 1856.

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p. 121– 36 HAWN, Frederick. Report. Feb. 1, 1854.

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p. 139–84 Description of a geological section on the Mississippi River, from St. Louis to Commerce.
p. 185–208 Palaeontology.

p. 209– 12 SWALLOW, G. C. What was known of our geology. Appx. A.
p. 213– 20 ————. Use of fossils, with catalogues. Appx. B.
p. 221– 26 ————. Trees and shrubs. Appx. C.
p. 227– 38 ————. Glossary.

1857 Third report of progress of the geological survey of Missouri, for 1855–56. Jefferson City, 1857. (In 19th Gen. Assem., 1st sess., 1856, Jour. appx. p. 245–47).

1859 ————. Fourth report of progress . . . Dec. 22, 1858. Jefferson City, 1859. (In 20th Gen. Assem., 1st sess., 1858. Jour. appx. p. 97–106).

1859 ————. Geological report of the country along the line of the southwestern branch of the Pacific Railroad, state of Missouri, to which is prefixed a memoir of the Pacific Railroad. St. Louis, Knapp & co., 1859. 17 + 93 p. pl. map.

1861 ————. Fifth report of progress . . . Dec. 30, 1860. Jefferson City, 1861. (In 21st Gen. Assem., 1st sess., 1860. Jour. appx. p. 521–33).

1873 BROADHEAD, G[arland] C[arr], MEEK, [Fielding] B[radford], and SHUMARD, B[enjamin] F[ranklin]. Reports on the geological survey of the state of Missouri: 1855–1871 . . . Jefferson City. Regan & Carter, 1873. 324 + 4 p. illus. pl.

p. 7–110, ch. 1– 6, by BROADHEAD.
p. 111– 88, 7– 9, by MEEK.
p. 189–323, 10–20, by SHUMARD.

Papers in Society Transactions

1855 HAWN, F[rederick]. Geology of Missouri.
In Mining Mag. (1853), v. 5, p. 382–94. Nov. 1855.

1857 SWALLOW, G. C. Explanations of the geological map of Missouri, and a section of its rocks.
Rd before Amer. Assoc. Adv. Sc. (1848), in Aug. 1857. In its Proc. v. 11, p. 1–21, 1 pl.

————. Quaternary deposits of Missouri.
Rd before Amer. Assoc. Adv. Sc. (1848), in Aug. 1857. In its Proc. v. 11 (pt. 2), p. 21–39, pl. 1858.

1859 SHUMARD, B. F. Observations on the geology of the county of St. Genevieve, being an extract from a Report made to the Geological Survey of Missouri, in 1859.
Rd before Acad. Sc. St. Louis (1856), June 6, 1859. In its Trans. v. 1, p. 404–15, 1 pl.

1860 SWALLOW, G. C. Descriptions of new fossils from the Carboniferous and Devonian rocks of Missouri.
Rd before Acad. Sc. St. Louis (1856), July 2, & Oct. 15, 1860. In its Trans. v. 1, p. 635–60 & Trans. v. 2, p. 81–100. 1860 & May 1, 1862.

1861 ————. Vertical section of Silurian strata of Cape Girardeau County.
Rd before Acad. Sc. St. Louis (1856), April 15, 1861. In its Trans. v. 2, p. 156.

NEW ORLEANS ACADEMY OF SCIENCES (1853)

History

The existence of a Lyceum of Natural History in New Orleans is noted in the American Journal of Science, v. 10, p. 376, February 1826 (by S. E. Dwight).

On April 1, 1853, the New Orleans Academy of Sciences was organized, the primary object of which was "to advance science in all its departments." The officers for 1853 were Josiah Hale, M.D., president; J. S. Copes, vice-president; A. W. Ely, secretary.

The Society was incorporated in 1856. Its Proceedings for 1853–54 were published in a short volume on March 1, 1854. The Academy was divided into thirteen sections, of which sections one to three comprised the natural history sciences. The Academy was also interested in advocating and finally securing a geological survey of the state of Louisiana.

Active natural history members of the Academy during the period 1853–65 were John L. Riddell, W. P. Riddell, Bennet Dowler, N. B. Benedict, P. E. Bonford, A. G. Blanchard, W. A. Gordon, L. von Reizenstein, Caleb Forshey, and Messrs Picton, Crawcour and Chilton.

A large collection of natural history material and a library were formed during this period, but were broken up and dispersed during the war. A brief account of the history of the Society may also be found in the Academy's Papers. v. 1, no. 1, p. 5–7, 1886–87, in an address by the president, John B. Elliott. The collections which survived the war were turned over to the Museum of Tulane University.

Bibliography

1854 NEW ORLEANS ACADEMY OF SCIENCES. Proceedings . . . from May, 1853 to February, 1854 . . . New Orleans, March 1, 1854. 71 p.
This was v. 1, no. 1, all that was published.

———. Constitution and by-laws. New Orleans, 1854. 22 p.

1858 ———. Report of the special committee of the . . . appointed Dec. 7, 1857, "to investigate and report, at as early a day as practicable, upon the subject of a geological and scientific survey of the state of Louisiana, with a view to bringing the matter before the Legislature of the state, at the commencement of the ensuing annual session, unanimously adopted, Feb. 1, 1858." New Orleans, 1858. 13 p.

Committee consisted of J. L. Riddell, N. B. Benedict, A. G. Blanchard, W. A. Gordon, and P. E. Bonford.

1859 ———. Constitution and by-laws . . . together with a list of the fellows, honorary and corresponding members . . . New Orleans, 1859. 13 p.

1863 REIZENSTEIN, L. von. Catalogues of the Lepidoptera of New Orleans and vicinity. New Orleans, 1863. 10 p.

1866 NEW ORLEANS ACADEMY OF SCIENCES. Memorial of the . . . to the Senate and House of Representatives of the state of Louisiana. New Orleans, 1866. 8 p.

1886 ————. Papers . . . v. 1, no. 1–2. New Orleans, 1886–88.

THE PACIFIC RAILROAD SURVEYS (1853)

History

"Shortly before the close of the session of Congress in March, 1853, an appropriation of $150,000 was made to defray the expenses of the Survey of the various routes along which it was supposed that a railroad might be constructed from the Mississippi River to the Pacific Ocean. For this purpose six parties were organized by the War Department for the survey of four main routes, and in a short space of time they were in the field.

"All the parties were fitted out in the most complete manner; the natural history apparatus and material prepared under the direction of the SMITHSONIAN INSTITUTION (1846), q.v., who also furnished the necessary instructions as to the objects most important to be collected. In its efforts to secure the assignment to these parties of persons capable of making collections and observations in natural history, it was met by the hearty co-operation of the War Department through the heads of the different expeditions and Captain A. A. Humphreys, in charge of the Pacific Railroad Surveys Office . . .

"The main divisions of routes, personnel, etc., were:

1. Line of the 47th parallel under Gov. I. I. Stevens, 1853–55.
2. Line of the 38th, 39th and 41st parallels under Lts. Gunnison and Beckwith—1853–54.
3. Line of the 35th parallel under Lt. Whipple.
4. California line under Lts. Williamson and Abbot.
5. Line of the 32d parallel—west under Lt. Parke.
6. Line of the 32d parallel—east under J. Pope.

"The collections of all the government parties just mentioned were transmitted, from time to time, to the Smithsonian Institution, and were there properly cared for, until the return of the several expeditions. They were then placed into the hands of the naturalists selected to elaborate them, and the necessary drawings prepared within its walls, under the direction of the Institution, to which was also committed the general supervision of the engraving and printing of the plates . . ." BAIRD, S. F., in Pacific RR. Surv. v. 8, Introd. p. 13. 1857. (Serial 765 or 798 of U. S. Documents).

The general instructions of the Secretary of War, Jefferson Davis, as given to the commanders of the various expeditions were briefly as follows: "They were directed to observe and note all the objects and phenomena which have an immediate or remote bearing upon the railway, or which might seem to develop the resources, peculiarities, and climate of the country; to determine the geographical positions, obtain the topography, observe the meteorology, including the data for barometric profiles, and two of the parties were to determine the direction and intensity of the magnetic force. They were to make a geological survey of the lines; to collect information upon, and specimens of, the botany and zoology of the country; and to obtain statistics of the Indian tribes which are found in the regions traversed . . ." DAVIS, Jefferson. Report of Sec. War. Pacific RR. Surv. v. 1, p. 7–8. (Serial 758 or 791).

For a discussion and critical estimate of the geological and palaeontological aspects of the series of explorations conducted under the Pacific Railroad Surveys, see also MERRILL, (1), p. 449–56. (See Annot. Bib.). See also WARREN, v. 11, of these Reports for complete routes followed, etc. See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 310–19.

The material for these Surveys is arranged as follows:

1) A brief history of each exploration.

2) Bibliographical presentation and analysis of the various reports, taken approximately in their numerical order.

(A) contains analysis of the initially contemplated reports which appeared only in 3 v. and was abandoned for

(B) which contains a complete, comprehensive bibliographical analysis of the 12 v. constituting the set of Reports; with references to (A), where necessary, etc.

3) After each expedition or volume, is added a section PAPERS IN SOCIETY TRANSACTIONS, recording the articles written before or after the publication of the official reports, which concern the respective explorations.

Under (B), will be found a summary of the volumes in the set, for rapid reference use.

For convenience, the serial numbers of the volumes as they are found in the United States documents, are given in order to facilitate cross reference, as the set of Reports was published in both a House and a Senate edition.

STEVENS' EXPEDITIONS (See v. 1 & v. 12)

47th & 49th Parallels

"This Expedition, as first organized consisted of four separate parties. The one under Gov. Stevens' personal supervision, operated from St. Paul westward towards the mouth of White Earth River; thence on the prairies lying along the Missouri River to the Rocky Mountains; and then among the passes of that region.

Another under Capt. G. B. McClellan began at Fort Vancouver, on the Columbia, operated northeastward, examining the passes of the Cascade range; and then eastward to join Gov. Stevens' party. Another party under Lt. A. J. Donelson, examined the Missouri River from its mouth to the Yellowstone—where a junction was made with that under Gov. Stevens. The fourth party under Lt. R. Saxton conducted a reconnaissance from Fort Walla-Walla to the Bitter-Root Valley, where a depot was established . . ." WARREN, v. 11, p. 66–7.

Gov. Stevens was assisted on this expedition by Brevet Capt. McClellan, Lt. C. Grover, F. W. Lander and A. W. Tinkham, engineers; J. Moffett and J. Doty, meteorologists; G. W. Stevens,

assistant astronomer; J. M. Stanley, artist; S. F. Baird was the naturalist in charge. Dr. John Evans, then geologist of Oregon and Washington territories, was appointed geologist to the expedition. Drs. J. G. Cooper and George Suckley were appointed surgeons and assistant naturalists. George Gibbs was geologist and ethnologist to the expedition.

Cooper and Gibbs accompanied McClellan's party; Suckley was with Stevens. Reconnaissances and explorations continued through 1855, the expedition first setting out June 8, 1853, from St. Paul. Gov. Stevens was during the period of the expedition governor of Washington Territory. His Report was rendered May, 1860, the preliminary report (in v. 1) having been made in 1855. Dr. Evans, the official geologist of the party, lost his reports in transmission to Washington. Several preliminary papers appeared in Society Transactions (see v. 12).

Details of the routes followed will be found in WARREN, p. 66–73. For preliminary Report, see v. 1 & for the Final Report and Scientific Appendixes, see v. 12 (which in the House ed. is in 2 v.).

Dr. Evans' MSS regarded as lost, is now, according to G. P. Merrill (First 100 yrs. Amer. Geol. 1924. p. 318, ft. note), in the archives of the Smithsonian Institution, having been deposited there in 1917 by D. I. Bushnell, Jr.

GUNNISON & BECKWITH'S EXPEDITIONS (see v. 2)

38th & 39th Parallels & the 41st

This expedition was organized under orders dated May 20, 1853, under the direction of Capt. J. W. Gunnison, who was barbarously murdered by the Indians on Oct. 26, 1853. Lt. E. G. Beckwith thereupon assumed command of the party for the remaining period of exploration, and submitted his Report based on Gunnison's notes.

Dr. James Schiel accompanied the expedition as surgeon and naturalist. His specimens were forwarded to the Smithsonian Institution. F. Creutzfeld was the botanist of the expedition; R. H. Kern, topographer; they were both murdered by the Indians Oct. 26, 1853. Creutzfeld made large botanical collections.

The route followed, according to WARREN, p. 73–5, was: "The more minute reconnaissance will continue up the Huerfano into the San Luis Valley, and thence through the most eligible pass to

the valley of Grand River, and westwardly to the vicinity of the Vegas de Santa Clara; and thence . . . either along the Nicollet River on to the west of the range of mountains bordering that stream, into the basin, upon the route to the Great Salt Lake; thence to Utah Lake and through the Timpanagos Canon or other passes across the Weber and Bear Rivers, by the Coal Basin to Fort Laramie."

Gunnison's Report as edited by Beckwith was rendered Nov. 25, 1854. (see v. 2, pt. 1). His own (v. 2, pt. 2) was submitted Dec. 30, 1854. After tiding over the winter of 1853–54 in Salt Lake City, Beckwith resumed explorations with the surviving members of the expedition on April 4, 1854. Survey was completed in July, 1854.

J. A. Snyder collected the plants on Beckwith's Expedition in 1854. The descriptions were referred to Messrs. John Torrey and Asa Gray, who rendered the official report on the botany. For route followed by Beckwith in 1854, see WARREN, p. 75–6.

POPE'S EXPEDITION (see (B), v. 2, pt. (4))

32d Parallel

For the route followed by Pope's Expedition along the 32d parallel from the Red River to the Rio Grande, see WARREN, p. 79–80. No regular geologist or naturalist was employed on this expedition but collections of geological, botanical and zoological specimens were made by C. L. Taplin, L. H. Marshall, and Dr. Dieffenderfer, Pope's assistants. The specimens were submitted to and described by W. P. Blake (geology, etc.,), Torrey & Gray (botany), Baird (zoology). Blake made a special report on the geology of the expedition sent to him by Pope. J. C. Booth reported on the soils. See also (A), v. 2, Serial no. 737, pt. (4).

PARKE'S EXPLORATIONS (see v. 2, pt. (5), & v. 7)

32d Parallel, & California

From February 16 to March 24, 1854, Lt. J. G. Parke explored the country lying near the 32d parallel between Dona Ana on the Rio Grande, and the Pimas Villages on the Gila. His Report was rendered August 22, 1854. He was assisted by Lt. George Stoneman, A. L. Heermann, physician and naturalist, and Henry Cus-

ter, assistant topographer. For route followed, see WARREN, p. 79. (See below v. 2, pt. (5), for Report).

From November 22, 1854, through May, 1855, Lt. Parke, assisted by Albert H. Campbell, chief assistant, Thomas Antisell, geologist and naturalist; A. L. Heermann, naturalist, made explorations from the San Francisco Bay to Los Angeles, and from the Pimas Villages on the Gila to the Rio Grande. His Report was rendered February 9, 1857.

His instructions were as follows:

"1) To make such explorations and surveys as will determine the practicability of a railroad from the Bay of San Francisco to the plains of Los Angeles by a route west of the Coast Range.

"2) To determine whether the valley of the Mojave River joins that of the Colorado, and will afford a practicable route for a railroad; and to explore the line recommended for examination by Lt. Whipple, from Soda Lake, Mojave River, to the Colorado River, by the Chem-e-huevas plain or valley.

"3) To make the additional examinations and surveys, recommended in your report upon the route from the Pimas Villages to the Rio Grande." A. A. HUMPHREYS.

The Zoological reports by A. Heermann and Edward Hallowell appeared in v. 10 of the set, published in 1859. See v. 7, Contents, below. John Torrey made the botanical report; and Thomas Antisell the geological, with a chapter on the palaeontology by T. A. Conrad.

WHIPPLE'S EXPLORATIONS (v. 3–4)

35th Parallel

Lt. Whipple, assisted by Lt. J. C. Ives; J. M. Bigelow, surgeon and botanist; Jules Marcou, geologist and mining engineer; C. B. R. Kennerly, physician and naturalist, conducted explorations along the 35th parallel from the Mississippi River to the Pacific Ocean, between July 13, 1853, when the party left Fort Smith, to March 25, 1854.

Whipple's Report was rendered June 30, 1855, in two volumes, v. 3–4 of the set (q.v. below, for contents). His initial Report also appeared in (A), v. 2, pt. (3), Serial no. 737 (q.v. below).

H. B. Mollhausen was attached to the expedition in the capacities of topographer and artist. Marcou took his notes abroad con-

trary to government orders; and when they were returned, they were placed in the hands of W. P. Blake, who drew up the Report and the map. The Zoological contents of the Explorations were published in v. 10, in 1859 (see v. 4, below). For the routes followed by the Whipple parties, see WARREN, p. 76–8.

A report on the Indian tribes was made by Messrs. Whipple, Ewbank and Turner; that on fossils, by James Hall; those on botany by J. M. Bigelow, John Torrey, W. S. Sullivant, George Engelmann, Asa Gray; those on zoology by Charles Girard, S. F. Baird, C. B. R. Kennerly.

WILLIAMSON'S EXPEDITION (see v. 5)

Connecting 35th & 32d Parallels

Lt. R. S. Williamson received the following instructions for a survey of a route connecting those of the 35th and 32nd parallels. His instructions were as follows:

"1) The party for this exploration and survey will be commanded by Lt. R. S. Williamson, who will be aided by Lt. J. G. Parke, one mineralogist and geologist, one physician and naturalist, two civil engineers, one draughtsman . . .

2) The party will rendezvous at Benicia, in the passes of the Sierra Nevada leading from the San Joaquin and Tulare Valleys, and subsequently explore the country to the southeast of the Tulare Lakes, to ascertain the most direct practicable route for a railroad between Walker's Pass, or such other pass as may be found preferable, and the mouth of the Gila; from this point the survey will be continued to San Diego . . ." HUMPHREYS, A. A.

Work was begun on July 10, 1853, and completed at the end of the year. Williamson's Report was rendered Dec. 31, 1854. Dr. A. L. Heermann, the physician and naturalist of the expedition, made large natural history collections. W. P. Blake, geologist and mineralogist of the party, made an extensive report (of which a special ed. pub. 1858, was issued by himself—see below): PAPERS IN SOCIETY TRANSACTIONS: 1858.

Brief reports were made by Louis Agassiz, A. A. Gould, J. D. Easter, T. A. Conrad, J. W. Bailey, G. C. Schaeffer, John Torrey, Elias Durand, T. C. Hilgard, Edward Hallowell, S. F. Baird, Charles Girard.

The Zoological Report, pt. 4 of the Report, appeared in v. 10, Wash. 1859. For contents, see below: v. 5, pt. 4.

See also MERRILL, (1), p. 449–56. (See Annot. Bib.). For details of routes, etc., see also WARREN, p. 78–9. See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 313–15.

WILLIAMSON & ABBOT'S EXPEDITION (see v. 6)

Sacramento Valley to Columbia River

Early in 1855, Lt. R. S. Williamson, assisted by Lt. H. L. Abbot, received instructions:

"1) To make such explorations and surveys as will determine the practicability, or otherwise, of connecting the Sacramento Valley, in California, with the Columbia River, Oregon Territory, by a railroad, either by the Willamette Valley, or . . . by the valley of the Des Chutes River, near the foot slopes of the Cascade chain . . .

2) To make the necessary examinations and surveys to determine if a route practicable for a railroad exists crossing the Sierra Nevada, at or near the source of Carson River. This may furnish the most direct railroad route from San Francisco to the Great Salt Lake . . . The geological information is considered especially valuable in determining the character of the country, the nature of the difficulties to be encountered . . . Your attention is directed to the botany and natural history of the country . . ." A. A. HUMPHREYS.

The expedition was carried on between July 10 and the middle of November, 1855. The Report, written by Lt. Abbot, owing to Lt. Williamson's illness, was rendered May 6, 1857. During the latter part of the survey, Lt. Abbot led a detached expedition.

J. S. Newberry was the geologist of the expedition; and E. Sterling, the zoologist. Owing to a protracted illness, he was, however, compelled to relinquish his duties at Fort Dalles. Zoological collections were made by C. D. Anderson and Lt. W. P. Trowbridge.

For the contents of v. 6, the Final Report of the Expedition, see below, (B), v. 6. See also MERRILL, (1), p. 455. (See Annot. Bib.). See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 317. For routes followed, see also WARREN, p. 81–2.

The natural history collections gathered on the Expedition were described by Newberry, T. A. Conrad, E. N. Horsford, L. M.

Dornbach, Asa Gray, John Torrey, W. S. Sullivant, Edward Tuckerman, Charles Girard, S. F. Baird, W. G. Binney. See below, (B), v. 6, Contents.

Number 4 of the Zoological Report, on the Reptiles collected, by Baird, was published in v. 10.

ZOOLOGICAL COLLECTIONS (see v. 8, 9, 10)

The general reports on the zoological collections gathered by the various parties of the Pacific Railroad Surveys are incorporated in (B), v. 8, 9 & 10. They contain descriptions of the specimens collected officially during the Pacific RR. Surveys and descriptions of those collected by several other expeditions, namely: WARREN'S SIOUX EXPED. (1855), q.v.; WARREN'S EXPLOR. NEBRASKA & DACOTAH (1856), q.v.; NORTHWESTERN BOUNDARY SURV. (1857), q.v.; U. S. & MEXICAN BOUNDARY SURVEY (1848), q.v.; BRYAN'S EXPED. FROM FORT RILEY TO BRIDGER'S PASS (1856), and MARCY'S EXPLOR. BIG WICHITA (1854).

Large collections were also made by various individuals and sent to the SMITHSONIAN INSTITUTION (1846), q.v., the government repository for the specimens. They were made by John Potts, Maj. Rich, Lt. Couch, Col. Alfred Vaughan, Richard D. Cutts, John F. Hammond, E. Samuels, G. H. Thomas, W. S. King, A. S. Taylor, C. C. Boyle, W. F. Tolmie, Dr. Belandiere, J. F. Head, S. W. Manney, Charles Cavileer, W. A. Hammond, Alexander, Thaddeus and Ferdinand Culbertson, L. A. Edwards, S. W. Crawford, J. S. Bowman, Dr. Swift, Edward T. Dennig, Capt. S. Van Vliet, Maj. J. H. Carleton.

The fitting out of the Expeditions for the making of natural history collections was in the hands of the Smithsonian. For an account of the various collections, etc., see Preface to v. 8.

For the contents of the 3 volumes of the general report, see below, (B), v. 8, 9, 10. Volume 10 contains also the zoological reports of the separate expeditions which were written too late to be incorporated in the reports of the individual expeditions.

WARREN'S MEMOIR (see v. 11)

"My instructions were to carefully read every report and examine every map of survey, reconnaissance, and travel which

could be obtained, to ascertain their several values, and to embody the authentic information in the map . . ." WARREN, G. K., in his letter to Capt. A. A. Humphreys, Mar. 1, 1858.

For contents, see below (B), v. 11. An invaluable guide to the routes, personnel, etc., of the various expeditions in the United States from 1800 to 1857. Includes a number of which there were only MSS reports in the files of the War Dept. records. Contains the final map.

Bibliography & Reports

(A)

1855 U. S. WAR DEPARTMENT. PACIFIC RAILROAD SURVEYS. . . . Report of the Secretary of War communicating the several Pacific Railroad explorations. Washington, A. O. P. Nicholson, printer, 1855–56. 3 v. (4 v.) illus. maps. (In U. S. 33rd Cong., 1st sess., H. Ex. Doc. v. 18, no. 129. 4 parts). Serials no. 736, 737, [738], 739.

"Serial no. 738 was never printed. Serial no. 739 contains the maps. House resolution of Aug. 3, 1854, directed the printing of the reports during the recess, i.e., between Aug. 7, 1854, adjournment, 1st session and Dec. 4, 1854, assembling of 2d sess., 33d Cong.

Presumably Serials no. 736, 737, and 739 were printed under this order, though the Report of Jefferson Davis, Sec. of War, which is the first paper in v. 1, is dated Feb. 27, 1855.

The House on Feb. 14, and the Senate on Feb. 24, 1855, each ordered 10,000 copies of these reports, specifying additional matter to be included.

This accounts for the non-appearance of no. 738 (v. 3 of the first projected series, 8°.), as the matter contained in the eleven quarto volumes (see (B) below), printed under these later orders includes not only the contents of Serials no. 736, 737, and 739, but that listed to appear as 738, and much additional matter."

Extracts from U. S. Congressional Documents. Tables & Index. Wash. 1902. p. 551 (note).

CONTENTS:

v. 1, Serial no. 736

Wash. 1855. 43 + 117 + 4 + 12 + 599 + 15 p. illus.

CONTENTS:

(1)

DAVIS, Jefferson. Report of the Secretary of War. Wash. 1855. 43 p.

Gives outlines of the routes of the various explorations. Repr. in (B), v. 1, (7), Serial no. 758 & 791, q.v.

(2)

HUMPHREYS, A[ndrew] A[tkinson], and WARREN, G[ouverneur] K[emble]. An examination by direction of the Hon. Jefferson Davis, Sec. of War, of the Reports of the Explorations for railroad routes from the Mississippi to the Pacific, made under the orders of the War Department in 1853–54, and of the explorations made previous to that time, which have a bearing upon that subject. Wash. 1855. 117 p.

Repr. in (B), v. 1, (2), Serial no. 758 & 791, below. Cont. in (B), v. 7, (2), Serial no. 764 or 797, q.v.

(3)

JESUP, T[homas] S. Report. Wash. 1855. 4 p.

Repr. in Serials no. 758 or 791, (B), v. 1, (4), q.v. below.

(4)

STEVENS, I[saac] I[ngalls]. Report of the exploration of a route for the Pacific Railroad, near the forty-seventh and forty-ninth parallels, from St. Paul to Puget Sound. Wash. 1855. 12 + 599 + 15 p.

Repr. in (B), v. 1 & 12, below, q.v.

For history, personnel, routes, etc., see above, History: STEVENS' EXPEDITION.

CONTENTS:

p. 1–103 STEVENS, I. I. Report. ch. 1–18.
p. 103–599 Papers accompanying Gov. Stevens' Report.
p. 179–82 COOPER, J. G. Natural history report.
appx. 15 p. HUNT, E. B. Alphabetical index.

v. 2, Serial no. 737, 1855

149 + 136 + 154 + 8 + 324 p. illus.

CONTENTS:

(1)

BECKWITH, E. G., and GUNNISON, J. W. Report of explorations of a route for the Pacific Railroad, near the 38th and 39th parallels of latitude, from the mouth of the Kansas to Sevier River, in the Great Basin. 149 p.

Rendered Nov. 25, 1845.

Repr. in (B), v. 2, pt. (1), Serial 759 & 792 (below)

(2)

BECKWITH, E. G. Report of explorations for the Pacific Railroad, on the line of the forty-first parallel of north latitude. 136 p.

Rendered Dec. 30, 1854.

Repr. in (B), v. 2, pt. (2), Serial no. 759 & 792, (below)

p. 120–35 SCHIEL, James. Geological report of the country explored under the 38th and 41st parallels of north latitude, in 1853–54.

Repr. in (B), v. 2, pt. (2), see below.

p. 135–36 BAILEY, J. W. Letter . . . upon infusorial fossils submitted by Dr. Schiel.

Repr. in (B), v. 2, pt. (2), see below.

(3)

WHIPPLE, A[miel] W[eeks]. Report of explorations for a railway route, near the thirty-fifth parallel of latitude, from the Mississippi River to the Pacific Ocean. 154+8 p.

Rendered July 31, 1854.

Repr. in (B), v. 3–4, Serials, no. 760 & 761; & no. 793–794, (q.v. below)

For history, personnel, etc., see above, History: WHIPPLE'S EXPLORATIONS.

CONTENTS:

p. 5–40 WHIPPLE, A. W. Report. ch. 1–5.

See below (B), v. 3, pt. 1

p. 40–8 MARCOU, Jules. Résumé of a geological reconnaissance extending from Napoleon at the junction of the Arkansas with the Mississippi to the Pueblo de Los Angeles, in California. ch. 6. Written July 26, 1854.

See below (B), v. 3, pt. 4, p. 121–75.

p. 49–54 KENNERLY, C. B. R. Economical zoology—game and their means of subsistence. ch. 7. Written July 1, 1854.

p. 54–71 BIGELOW, J. M. General description of the soil and productions along the route traversed; remarks upon timber and fuel. ch. 8. Written Aug. 1854.

See below (B), v. 4, pt. 5, p. 1–16.

p. 71–5 ———— Description of special forest trees along the route—Douglass' spruce or Oregon pine . . .

See also (B), v. 4, pt. 5, p. 17–26.

p. 75–81 ———— Descriptions of special forest trees in California. ch. 10.

See also (B), v. 4, pt. 5, p. 17–26.

p. 81–154 WHIPPLE, A. W., and others. Miscellaneous reports. ch. 11 and appx.

(4)

POPE, John. Report of exploration of a route for the Pacific Railroad, near the 32d parallel of latitude, from the Red River to the Rio Grande. 324 p.

Rendered Oct. 17, 1854. Repr. in (B), v. 2, pt. (3), Serial no. 759 or 792, q.v. below.

For personnel, history, etc., see above, History: POPE'S EXPEDITION.

CONTENTS:

p. 5– 65	POPE, John. Report. ch. 1–8
p. 66–124	BYRNE, J. H. Diary of the expedition. ch. 9–12
p. 125– 28	MARCOU, Jules. Geological notes of a survey of the country comprised between Preston, Red River, and El Paso, Rio Grande del Norte. ch. 13. Written Sept. 21, 1854.
p. 128, 307–24	TORREY, John. Botanical report. ch. 14, etc.
p. 129	BAIRD, S. F. Natural history. ch. 15.
p. 130– 34	BOOTH, J. C. Soils and mineral waters. ch. 16.
p. 135–306	Meteorological and astronomical observations.

See also (B), v. 4, appx. 288 p.

(A), v. 3, Serial no. 738
Not Published.

(A), v. 4, Serial no. 739
Contains the Survey Maps.
See below (B), v. 11.

(B)

(1) Senate Set., Serials no. 758–768, 992.

1855 U. S. WAR DEPARTMENT. PACIFIC RAILROAD SURVEYS. . . . Reports of explorations and surveys, to ascertain the most practicable and economical route for a railroad from the Mississippi River to the Pacific Ocean, made under the direction of the Secretary of War, in 1853–4, according to acts of Congress of March 3, 1853, May 31, 1854, and Aug. 5, 1854. Washington, 1855–60. 12 v. illus. pl. maps, sect. diagr. tab. 4°. (In U. S. 33d Cong., 2d sess., Sen. Ex. Doc. v. 13, no. 78, 11 parts.) Serial nos. 758–768, (992).

v. 12 is suppl. to v. 1, and is (In U. S. 35th Cong., 2d sess., Sen. Ex. Doc. v. 18, no. 46) Serial no. 992.

(2) House Set., Serials no. 791–801, 1054–1055.

1855 ————. Same. . . . Washington, 1855–60. 12 v. in 13. illus. pl. maps. (In U. S. 33d Cong., 2d sess., H. Ex. Doc. v. 11, no. 91, 11 parts) Serials nos. 791–801, (1054–1055).

v. 12 is suppl. to v. 1 & in House set is in 2 v. (In U. S. 36th Cong., 1st sess., H. Ex. Doc. v. 11, no. 56, 2 parts) Serials no. 1054 & 1055.

Reports were reviewed in 1) Amer. J. Sc. v. 72, (ser. 2, v. 22), p. 67–95. July, 1856; 2) North Amer. Rev. v. 82, p. 211–36. Jan. 1856.

See also MERRILL, 1, p. 449–56. (See Annot. Bib.) Also in MERRILL. First 100 yrs. Amer. Geol. 1924. p. 310–19.

See also WAGNER, H. R. Plains & Rockies . . . 1860–1865. San Francisco, 1921. p. 119–28 for bibliographical notes.

SUMMARY OF CONTENTS OF VOLUMES (B)

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(2) Conclusion of official review of reports: 1855–57, by A. A. Humphreys. 37 p.
v. 8, 1857, Zoological Report of Survey: pt. 1, Mammals, by Baird.
v. 9, 1858, Zoological Report of Survey: pt. 2, Birds, by Baird, Lawrence and Cassin.
v. 10, 1859, (1) Zoological Report of Survey: pt. 3, Reptiles by Baird, and Fishes, by Girard.
(2) Individual Zoological Reports for the various expeditions.
v 11, 1859, Warren's Memoir, and General Map.
v. 12, 1859, Stevens' Final Report. (House ed., 2 v.)

(B), v. 1, Serial no. 758 or 791

1855 STEVENS, I[saac] I[ngalls]. . . . Report of explorations for a route for the Pacific Railroad, near the forty-seventh and forty-ninth parallels of north latitude from St. Paul to Puget Sound. Washington, 1855. 134 + 651 p. 4°. (Pacific RR. Surv. v. 1)

Repr. from (A), v. 1, Serial no. 736 (q.v. above).

For the routes followed and the personnel of the staff, see above, History: STEVENS' EXPED.

For FINAL REPORTS, see v. 12, below.

CONTENTS: (of v. 1)

(1.) DAVIS, Jefferson. Report of the Secretary of War on the several railroad explorations. 33 p.
Repr. from (A), v. 1, Serial no. 736, (1).

(2.) HUMPHREYS, A. A., and WARREN, G. K. Examination of the reports of the several routes explored; by A. A. Humphreys & G. K. Warren. p. 35–111.
Concluded in v. 7, (q.v.)
Repr. from (A), v. 1, Serial no. 736., (2).

(3.) Mc Clellan, G. B. Memoranda on railways. . . p. 113–30.

(4.) Jesup, T. S. Report upon the cost of transporting troops and supplies . . . p. 131–34.

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(5.) Stevens, I. I. Report.

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p. 11–3 Evans, John. Mineralogical and geological directions to the corps.

Pt. 2, p. 73–159 Stevens, I. I. Report and narrative. Contains ch. 1–18.

p. 160–651 Papers accompanying Gov. Stevens' Report.

p. 160–77 Lambert, John. Report of the topography of the route from the Mississippi River to the Columbia.

Also in (A), v. 1, Serial no. 736, p. 103–22.

p. 203–19 Duncan, J. K. Topographical report of the country in the region of the Cascade Mountains. Written Feb. 21, 1854.

Also in Serial no. 736, p. 157–78.

p. 219–21 Cooper, J. G. Natural history report . . . of the western division.

Also in Serial no. 736, p. 179–82.

p. 251–69 Saxton, R[ufus]. Report of the route from the Columbia Valley to Fort Owen, and thence to Fort Benton. Written Feb. 1854. Also in Serial no. 736, p. 219–44.

p. 291–301 Suckley, George. Report of his trip in a canoe from Fort Owen, down the Bitter Root, Clark's Fork, and Columbia Rivers to Vancouver. Written Dec. 19, 1853.

Also in Serial no. 736, p. 273–87.

p. 301–19 Mullan, John. Report of an exploration from Fort Benton to the Flathead Camp, beyond the Muscle Shell River, and thence by the southern Little Blackfoot River to the St. Mary's Valley. Written Jan. 20, 1854.

Also in Serial no. 736, p. 287–311.

p. 319–52 ———— Reports of explorations.

Also in Serial no. 736, p. 312–55.

p. 465–73 GIBBS, George. Report on a reconnaissance of the country lying upon Shoalwater Bay and Puget Sound. Written Mar. 1, 1854.

Also in Serial no. 736, p. 483–94.

p. 473–86 ———— Report on the geology of the central portion of Washington Territory.

Written May 1, 1854. Also in Serial no. 736, p. 494–512.

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Also in Serial no. 736, p. 561–98.

p. 515–40 MULLAN, John. Reports.

p. 542–65 DOTY, James. Reports.

p. 637–51 HUNT, E. B. Alphabetical index.

(B), v. 2, Serial no. 759 or 792

(1)

1855 BECKWITH, E[dward] G[riffin], and GUNNISON, J[ohn] W[illiam]. . . . Report of explorations for a route for the Pacific Railroad by Capt. J. W. Gunnison . . . near the 38th and 39th parallels of north latitude, from the mouth of the Kansas River, Mo., to the Sevier Lake, in the Great Basin. Washington, 1855. 128 p. 13 col. pl. 4°. (Pacific RR. Surv. v. 2)

Written Nov. 25, 1854. Repr. from (A), v. 2, Serial no. 737. 149 p. (see above)

Scientific Contents are in pt. (2), below.

See also (U. S. 33rd Cong., 1st sess., H. Ex. Doc. v. 5, no. 18), Wash. 1854. 10 p. Serial no. 717. Brief report by Gunnison.

For history, personnel, etc., see above, History: BECKWITH & GUNNISON'S EXPED.

(2)

1855 BECKWITH, E[dward] G[riffin]. . . . Report of explorations for a route for the first Pacific Railroad, of the line of the forty-first parallel of north latitude, 1854. Washington, 1855. 132 p. 14 pl. (Pacific RR. Surv. v. 2).

Survey begun Apr. 4, 1854, and ended July 26, 1854.

Collections of Vertebrates were described in v. 10, (Serials no. 767 or 800), but are analysed below.

Repr. from (A), v. 2, pt. (2), Serial no. 737, q.v. above.

For history, route, etc., see above History: BECKWITH & GUNNISON'S EXPED.

CONTENTS:

p. 1– 95 BECKWITH, E. G. Report.

p. 96–111 SCHIEL, James. Geological report upon the country explored under the 38th and 41st parallels of north latitude, in 1853–54. 4 pl.

Also in (A), v. 2, Serial no. 737, pt. (2), p. 120–35.

p. 111– 12 BAILEY, J. W. Letter upon infusorial fossils submitted by Dr. Schiel.
Written Dec. 14, 1854. Also in (A), v. 2, Serial no. 737, pt. (2), p. 135–36.

p. 115– 32 TORREY, John and GRAY, Asa. . . . Report on the botany of the expedition. 10 pl. [74 fig.]
pt. 1 Plants collected by James A. Snyder, under the direction of Lt. E. G. Beckwith, in an expedition made under his charge from Great Salt Lake, Utah Territory, directly west to the Sacramento Valley, in California, in the months of May, June and July, 1854. p. 119–25.
pt. 2 Plants collected by Mr. F. Creutzfeld under the direction of Capt. J. W. Gunnison, in charge of explorations for a railroad from Fort Leavenworth, via the Kansas, Arkansas, & Huerfano Rivers, the Sangre de Cristo Pass, San Luis Valley, Coochetopa pass, and Green Rivers, and thence into the Great Basin, in the vicinity of the Sevier or Nicollet Lake—June–Oct. 1853. p. 125–31.

Papers in v. 10, Serial no. 767 or 800 Zoological Reports. Wash. 1857. 27 p. 18 pl.

CONTENTS:

p. 7– 9 BAIRD, S. F. Report upon mammals collected on the survey . . . no. 1, p. 7–9, 3 pl.
p. 11– 6 ———— Report on birds collected. . . 5 col. pl.
p. 17–20 ———— Report on the reptiles collected. . . no. 3, p. 17–20, 4 pl.
p. 21– 7 GIRARD, Charles. Report on the fishes collected. . . no 4, p. 21–7, 6 pl.
Appx. Alphabetical index. (1) p.
Report on Insects by J. L. Le Conte, never made.
See his paper under v. 12

(3)

1856 LANDER, F[rederick] W[illiam]. Synopsis of a report of the Reconnaissance of a railroad route from Puget Sound via South Pass to the Mississippi River. Wash. 1856. 45 p. (Pacific RR. Surv. v. 2).
Rendered July 21, 1856.

(4)

1855 POPE, John. . . . Report of exploration of a route for the Pacific Railroad, near the thirty-second parallel of north latitude, from the Red River to the Rio Grande. Washington, 1855. [5] + 185 +

50 p. 10 pl. col. maps. sect. tab. 4°. (Pacific RR. Surv. v. 2).
Repr. from (A), v. 2, pt. (4), Serial no. 737. q.v. above.

CONTENTS:

p. 1– 50 POPE, John. Report.
p. 51– 93 BYRNE, J. H. Diary of the expedition.
p. 94 BAIRD, S. F. Preliminary report on the natural history.
p. 95– 7 BOOTH, J. C. Report on the soils and mineral waters.
p. 98–156 Meteorological and astronomical observations.
p. 157– 78 TORREY, John, and GRAY, Asa. . . . Report on the botany of the expedition. . . 10 pl. [93 fig.]
50 p. BLAKE, W. P. . . . Report on the geology of the route near the thirty-second parallel: prepared from the collection and the notes of Capt. Pope. 50 p. col. map. sect. tab.
Written Dec. 1855.

(5)

1855 PARKE, John G[rubb]. Report of explorations for that portion of a railroad route, near the thirty-second parallel of north latitude, lying between Dona Ana, on the Rio Grande, and Pimas Villages, on the Gila. Washington, 1855. 28 p. (Pacific RR. Surv. v. 2).

Rendered Aug. 22, 1854.

For cont. see v. 7, below.

For history and routes followed, see above History: PARKE'S EXPLORATIONS.

(6)

1855 EMORY, William Helmsley. . . . Report from report of a military reconnaissance, made in 1846 and 1847. Washington, 1855. 22 p. (Pacific RR. Surv. v. 2).

Route near the 32d parallel of north latitude.

See EMORY RECONN. FORT LEAVENWORTH TO SAN DIEGO (1846)

(B), v. 3 & 4, Serials no. 760 & 761, or no. 793 & 794

1856 WHIPPLE, A[miel] W[eeks], and IVES, J[oseph] C[hristmas]. . . . Report of explorations for a railway route, near the thirty-fifth parallel of north latitude from the Mississippi River to the Pacific Ocean; by Lt. A. W. Whipple, assisted by Lt. J. C. Ives . . . 1853–54. Washington, 1856. 2 v. illus. pl. maps. 4°. (Pacific RR. Surv. v. 3–4).

v. 3 pt. 1–4 8 + 136 + 77 + 127 + 119 p.
v. 4 pt. 5–6 7 + 193 + 17 + 288 p.

For personnel, history, route, etc., see above, History: WHIPPLE'S EXPLORATIONS.

Preliminary Report by Whipple also pub. in (A), v. 2, pt. (3), Serial no. 737, (above, q.v.)

CONTENTS:

pt. 1 WHIPPLE, A. W. Itinerary: 1854. 8 + 136 p. pl.

2 ———— Report on the topographical features of the country. Wash. 1856. 77 p.

3 WHIPPLE, A. W., EWBANK, Thomas, and TURNER, W. W. Report upon the Indian tribes. Wash. 1855. 127 p. illus. pl.

4 BLAKE, W. P. General report upon the geological collections. no. 1, 119 p. 3 pl.

p. 99–119, ch. 9–10, HALL, James. Descriptions and notices of the fossils collected on the route. 2 pl. tab.

MARCOU, Jules and BLAKE, W. P. Résumé and field notes; by Jules Marcou; with a translation and additional material by W. P. Blake.

See also above, (A), v. 2, pt. (3), Serial no. 737, Whipple's Rept. p. 40–8.

(B), v. 4, Serial no. 761 or 794

Continuation of (B), v. 3

CONTENTS:

pt. 5 Report on the Botany of the Expedition. 7 + 193 p. 59 pl.

no. 1, BIGELOW, J. M. General description of the botanical character of the country. p. 1–16.

Written Aug. 1854. See also (A), Serial no. 737, pt. (3), p. 54–71.

no. 2, ———— Description of forest trees. p. 17–26, col. pl.

See also (A), pt. (3), p. 71–81.

no. 3, ENGELMANN, George, and BIGELOW, J. M. Description of the Cactaceae. p. 27–58, 24 pl. [180 fig.]

Also in Repr. of E's Papers. 1887. p. 154–76.

no. 4, TORREY, John. Description of the general botanical collections. p. 59–182, 25 pl. [179 fig.] Preface written Jan. 12, 1857. p. 95–9, 117–22, by Asa GRAY.

no. 5, SULLIVANT, W. S. Description of the Mosses and liverworts. p. 185–93, 10 pl. [162 fig.]

pt. 6 Report on the Zoology of the Expedition. Wash. 1856. 17 p. (Incl. only no. 1)

no. 1, KENNERLY, C. B. R. Field notes and explanations. 17 p.

pt. 6, no. 2–5, in v. 10, Wash. 1859. 64 p. 34 pl.

no. 2, ———— Report upon the Mammals of the Survey-route. v. 10, p. 11–8, 6 pl.

See above (A), v. 2, pt. (3), p. 48–54.

no. 3, ———— Report upon the birds of the route. v. 10, p. 19–35, 11 col. pl.

no. 4, BAIRD, S. F. Report upon the reptiles of the route. v. 10, p. 37–45, 3 pl.

no. 5, GIRARD, Charles. Report upon the fishes of the route. v. 10, p. 47–59, 14 pl.

Alphabetical index. p. 61–4.

APPENDIX to v. 4. Meteorological and astronomical observations. 288 p.

See also (A), v. 2, pt. (3), p. 135–306.

Papers in Society Transactions on Whipple's Exped.

1854 BAIRD, S. F. Descriptions of new birds collected between Albuquerque, N. M., and San Francisco, Cal., during the winter of 1853–54, by Dr. C. B. R. Kennerly and H. B. Mollhausen . . . attached to the Whipple Survey . . .

Rd before Phila. Acad. Nat. Sc. (1812), June 20, 1854. In its Proc. v. 7, p. 118–20.

GIRARD, Charles. Enumeration of the species of marine fishes collected at San Francisco by C. B. R. Kennerly . . .

Rd before Phila. Acad. Nat. Sc. (1812), Aug. 15, 1854. In its Proc. v. 7, p. 141–42.

1856 ENGELMANN, George. Synopsis of the Cactaceae of the territory of the United States and the adjacent regions . . . and corrections and additions . . .

Rd before Amer. Acad. A. & Sc. (1780), May 27 & Dec. 9, 1856. In its Proc. v. 3, p. 259–314, 345–46. See also paper rd before Acad. Sc. St. Louis (1856), Mar. 17, 1862. In its Trans. v. 2, p. 197–204.

1858 MARCOU, Jules. Geology of the Rocky Mountains . . . notes to accompany a geological description of the Rocky Mountains.

In Mining Mag. (1853), v. 11, p. 98–106. Aug. 1858.

(B), v. 5, Serial no. 762 or 795

1856 WILLIAMSON, R[obert] S[tockton]. . . . Report of explorations in California for railroad routes to connect with the routes near the 35th and 32d parallels of north latitude: 1853 . . . Washington, 1856–57. 8 + 43 + 370 + 16 + 15 + 15 p. illus. pl. tab. sect. diagr. 4°. (Pacific RR. Surv. v. 5).

Was originally intended to be included in (A), v. 3, Serial no. 738 (never pub.)

Rev. in Amer. J. Sc. v. 71 (ser. 2, v. 21), p. 268–75. Mar. 1856; & v. 76 (ser. 2, v. 26), p. 122–23. July, 1858.

For history, personnel, route, etc., see above, History: WILLIAMSON'S EXPEDITION.

CONTENTS:

pt. 1 WILLIAMSON, R. S. Report. Wash. 1855. 43 p.

pt. 2 BLAKE, W. P. Geological report. Wash. 1857. 16 + 370 + 13 p. illus. pl. maps.

Separate ed. pub. in 1858 by Blake is noted below under PAPERS IN SOCIETY TRANSACTIONS: 1858 (q.v.)

CONTENTS:

no. 1 BLAKE, W. P. Itinerary; or, Notes and general observations upon the geology of the route. ch. 1–10, p. 1–130, illus. 14 pl. sect. 4 maps.

no. 2 ———— Geology of portions of the route. ch. 11–20, p. 131–310. illus. pl. sect. maps.

appx. AGASSIZ, Louis. Notice of the fossil fishes. art. 1, p. 313–16, 1 pl. [44 fig.]

CONRAD, T. A. Descriptions of the fossil shells. art. 2, p. 317–29, 8 pl. [83 fig.] Written Jan. 1855.

GOULD, A. A. Catalogue of the recent shells, with descriptions of the new species. art. 3, p. 330–36, 1 pl. [29 fig.]

BAILEY, J. W. Letter describing the structure of the fossil plant from Posuncula River. art. 4, p. 337. Written Mar. 22, 1855.

SCHAEFFER, G. C. Description of the structure of the fossil wood from the Colorado desert. art. 5, p. 338–39, 1 pl. [4 fig.]

EASTER, J. D. Chemical examinations of soils and incrustations. art. 6, p. 340–43.

BLAKE, W. P. Catalogue of the geological collection, with descriptions of several of the specimens. art. 6, p. 344–58.

TORREY, John. Description of the plants collected along the route, by [W. P. Blake], and at the mouth of the Gila. art. 7, p. 359–70, 10 pl. [66 fig.] Written May 1, 1857.

pt. 3 DURAND, Elias, and HILGARD, T. C. Botanical report: description of plants collected upon the expedition. Wash. 1855. 15 p. 18 pl.

Written in 1854.

Pt. 4 is in v. 10, Serial no. 767 or 800.

pt. 4 HEERMANN, A. L., and others. Zoological report. Wash. 1859. 8 + 97 p. 26 pl. (In v. 10)

Introd. letter, by Heermann, pref. p. 8.

CONTENTS:

no. 1 HALLOWELL, Edward. Report upon the reptiles collected on the Survey. p. 1–27, 9 pl.

p. 24–5 List of reptiles collected, by A. L. HEERMANN.

no. 2 HEERMANN, A. L. Report upon the birds collected on the survey. p. 29–80, 7 col. pl.

no. 3 BAIRD, S. F. Report upon the Mammals collected on the Survey. p. 81–2.

no. 4 GIRARD, Charles. Report on the fishes collected on the survey. p. 83–91, 10 pl.

Alphabetical index, p. 94–7.

Appx. Surveying and astronomical data. 14 p.

Papers in Society Transactions

1854 GIRARD, Charles. Descriptions of new fishes, collected by Dr. A. L. Heermann, naturalist attached to the Williamson Expedition of the Pacific Railroad Survey.

Rd before Phila. Acad. Nat. Sc. (1812), Aug. 1, 1854. In its Proc. v. 7, p. 129–40.

DURAND, Elias, and HILGARD, T. C. Plantae Heermannianae: Descriptions of plants collected in South California by Dr. A. L. Heermann, attached to Lt. Williamson's Expedition . . . with remarks on other plants heretofore described belonging to the same collection.

Rd before Phila. Acad. Nat. Sc. (1812), Oct. 17, 1854. In its Jour. n. s. v. 3, p. 37–46. May, 1855.

1855 BLAKE, W. P. Notice of the remarkable strata containing the remains of Infusoria and Polythalmia in the Tertiary formation of Monterey, Cal.

Rd before Phila. Acad. Nat. Sc. (1812), April 24, 1855. In its Proc. v. 7, p. 328–31.

———— Observations on the extent of the gold region of California and Oregon, with notices of mineral localities, and of some remarkable specimens of crystalline gold.

In Amer. J. Sc. (1818), v. 70, (ser. 2, v. 20), p. 72–85. July, 1855. Repr. in Mining Mag. (1853), v. 5, p. 32–45. July, 1855.

———— Remarks upon the geology of California, from observations in connection with the U. S. Surveys for a railroad route to the Pacific.

Rd before Amer. Assoc. Adv. Sc. (1848), Aug. 1855. In its Proc. v. 9, p. 222–25.

———— On the grooving and polishing of hard rocks and minerals by dry sand.

In Amer. J. Sc. (1818), v. 70, (ser. 2, v. 20), p. 178–81. Sept. 1855. Also rd before Amer. Assoc. Adv. Sc. (1848), Aug. 1855. In its Proc. v. 9, p. 216–20. 1856.

1856 ———— On the rate of evaporation on the Tulare Lakes of California.

In Amer. J. Sc. (1818), v. 71 (ser. 2, v. 21), p. 365–68. May, 1856. Also rd before Nat. Inst. Prom. Sc. (1840), March 4, 1856.

———— Observations on the orography of the western portion of the United States.

Rd before Amer. Assoc. Adv. Sc. (1848), in Aug. 1856. In its Proc. v. 10 (pt. 2), p. 119–34. 1857.

1858 ———— Report of a geological reconnaissance in California; made in connection with the expedition to survey routes in California, to connect with the surveys for a railroad route from the Mississippi River to the Pacific Ocean under the command of Lt. R. S. Williamson . . . in 1853, by W. P. Blake, geologist and mineralogist of the expedition; with an appendix containing descriptions of portions of the collections by Prof. Louis Agassiz, A. A. Gould, J. W. Bailey, T. A. Conrad, John Torrey, G. C. Schaeffer, J. D. Easter. N. Y., H. Bailliere, 1858. 16 + 370 + 13 p. 14 pl. 14 sect., 5 maps, 80 illus., & 22 pl. 4°.

A repr. of v. 5, as given above, except for Williamson's Report. For contents: see above.

1859 Le Conte, J. L. The Coleoptera of Kansas and eastern New Mexico. In Smith. Inst. (1846). Contributions to Knowledge. v. 11, art. 6, 6 + 58 p. 2 pl. Dec. 1859.

(B), v. 6, (Serial no. 763 or 796)

1857 ABBOT, Henry L[arcom], and WILLIAMSON, R[obert] S[tockton]. Report of Lt. Henry L. Abbot, upon explorations for a railroad route, from the Sacramento Valley to the Columbia River, made by Lieut. R. S. Williamson, assisted by Lt. Henry L. Abbot: 1855. Washington, 1857. 134 + 85 + 102 + 114 + 64 p. illus. pl. maps. 4°. (Pacific RR. Surv. v. 6)

Rendered May 6, 1857. Rev. in Amer. J. Sc. v. 76, (ser. 2, v. 26), p. 123–26. July, 1858.

For personnel, route, history, etc., see above, History: Williamson & Abbot's Expedition.

Contents:

pt. 1 Abbot, H. L. Introduction. p. 1–15.
———— General report —. (narratives and journals). p. 17–134, illus. pl. sect. prof. maps. Wash. 1857.

pt. 2 Newberry, J. S. Report upon the geology of the route. no. 1, ch. 1–8, p. 9–68, illus. pl. Wash. 1856.
Conrad, T. A. Description of the Tertiary fossils collected on the survey. no. 2, p. 69–73, 4 pl. [25 fig.]
Horsford, E. N., and Dornbach, L. M. Report upon an analytical examination of water in minerals from the Hot Springs in Des Chutes Valley. no. 3, p. 74–8.
Newberry, J. S. Catalogue of the minerals and fossils collected on the survey. no. 4, p. 79–85.

pt. 3 Botanical Report. Wash. 1857. 102 p. 16 pl. 28 illus.
———— Report on botany. . . no. 1, p. 9–64, 10 pl.
Newberry, J. S., Gray, Asa, and Torrey, John. General catalogue of the plants collected on the expedition. no. 2, p. 65–102, 6 pl.
p. 90– 3 Endogenous plants, by Torrey.
p. 93– 4 Mosses and liverworts, by W. S. Sullivant.

p. 94 Lichens, by Edward TUCKERMAN.
p. 76– 9 Compositae, by GRAY.
p. 80– 3 Scrophulariaceae, by GRAY.

pt. 4 Zoological Report. Wash. 1857. 114+4 p. illus. 16 pl.
GIRARD, Charles. Report upon fishes collected on the survey. no. 1, p. 9–34, 11 pl.
NEWBERRY, J. S., and BAIRD, S. F. Report upon the zoology of the route. no. 2, p. 35–110, 5 pl.
ch. 1, p. 35– 72, Mammals
2, p. 73–110, Birds
BINNEY, W. G. Report upon the land shells collected on the survey. no. 3, p. 111–14.

pt. 4, no. 4, in v. 10, Serial no. 767 or 800.
BAIRD, S. F. Report on reptiles collected on the survey. v. 10, no. 4, p. 9–13, 4 pl.

Appendixes. Surveying and meteorological observations. 64 p.

Paper in Society Transactions

1858 MEEK, F. B. Descriptions of new organic remains from the Cretaceous rocks of Vancouver's Islands.
Rd before Albany Inst. (1824), in 1858. In its Trans. v. 4, p. 37–49. 1858.

(B), v. 7, (Serial no. 764 or 797)

(1)

1857 PARKE, John G[rubb], and CAMPBELL, Albert H. . . . Report of explorations for railroad routes from the San Francisco Bay to Los Angeles, California, west of the coast range, and from the Pimas villages on the Gila to the Rio Grande, near the 32d parallel of north latitude: 1854–55. Washington, 1857. 427 p. (42+204+28+116+37 p.) illus. pl. sect. diagr. tab. maps. 4°. (Pacific RR. Surv. v. 7).
Report rendered Feb. 9, 1857.
For history, personnel, route, etc., see above, History: PARKE'S EXPLORATIONS.
Rev. in Amer. J. Sc. v. 76, (ser. 2, v. 26), p. 126–27. July, 1858.

CONTENTS:

pt. 1 PARKE, J. G. General report. . . Wash. 1857. 42 p. 8 pl. prof. 2 maps.
no. 1, p. 1–18 Report of explorations from San Francisco Bay to Los Angeles.
no. 2, p. 19–42 Report of explorations from Pimas Villages to the Rio Grande.

pt. 2 Geological Report.
ANTISELL, Thomas. . . . Geological report. Wash. 1856. 204 p. 10 pl. [59 fig.] 14 sect. 2 maps.

p. 187–96, ch. 29 CONRAD, T. A. Report on the palaeontology of the survey. 8 pl. [46 fig.]

pt. 3 Botanical Report. Wash. 1857. 28 p. 8 pl.

TORREY, John. List and description of the plants collected; with descriptions of plates. ch. 1 & 3, p. 7–22, 27–8, 8 pl [60 fig.]

ANTISELL, Thomas. Synoptical tables of botanical localities. ch. 2, p. 23–6.

pt. 4 Zoological Report, in v. 10. Serial no. 767 or 800. Wash. 1859. 24 p. 4 pl.

HEERMANN, A. L. Report upon the birds collected on the survey. v. 10, no. 1, p. 9–21, 3 pl.

HALLOWELL, Edward. Report upon the reptiles collected on the survey. v. 10, no. 2, p. 23–4, 1 pl.

Appendixes. Meteorological and astronomical and surveying observations. 116 p.

p. 15–28, Appx. B.: POOLE, Charles H. Report upon the route from San Diego to Fort Yuma, via San Diego River, Warner's Pass and San Felipe Canon.

(2)

1857 HUMPHREYS, Andrew Atkinson. Conclusion of the official review of the Reports upon the Explorations and Surveys for railroad routes from the Mississippi River to the Pacific Ocean: 1855–57. Wash. 1857. 37 p. (Pacific RR. Surv. v. 7).

For first pt., see v. 1, (2), in (A), & (B).

(B), v. 8, Serial no. 765 or 798

Mammals

1857 BAIRD, Spencer Fullerton. . . . General report upon the zoology of the several Pacific railroad routes . . . part 1: Mammals by S. F. Baird. Washington, 1857. 48+757 p. 60 pl. [175 fig.] 35 illus. 4°. (Pacific RR. Surv. v. 8).

Report rendered July 20, 1857.

See above, History: ZOOLOGICAL COLLECTIONS.

Report rev. in Amer. J. Sc. v. 76, (ser. 2, v. 26), p. 142–45. July, 1858.

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Papers in Society Transactions

1855 BAIRD, S. F. Characteristics of some new species of North American Mammalia collected chiefly in connection with the Pacific Railroad Surveys.

Rd before Phila. Acad. Nat. Sc. (1812), Apr. 24, 1855. In its Proc. v. 7, p. 333–36.

(B), v. 9, Serial no. 766 or 799

Birds

1858 BAIRD, Spencer Fullerton, CASSIN, John, and LAWRENCE, George Newbold. . . . General report upon the Zoology of the several Pacific railroad routes . . . part 2: Birds, by S. F. Baird, with the co-operation of John Cassin and G. N. Lawrence . . . Washington, 1858. 56 + 1005 p. 4°. (Pacific RR. Surv. v. 9).

Parts contributed by Cassin covers, p. 4–64, 689–753, 900–18.
Part contributed by Lawrence, p. 820–900.
See also History: ZOOLOGICAL COLLECTIONS, above.

Another edition, pub. in 1860, included an atlas of 100 col. pl. issued separately and bound with the text, entitled: The Birds of North America; the descriptions of species based chiefly on the collections in the Museum of the Smithsonian Institution, by Spencer F. Baird . . . with the cooperation of John Cassin . . . and George N. Lawrence . . . with an atlas of one hundred plates . . . text. Phila. J. B. Lippincott & Co., 1860. [iii]–xv, [xvii]–lvi, 1005 p. + xv p. 100 col. pl. (atlas).
Preface [vii]–xii, contains explanations of the plates, with notes.
Preface dated Oct. 20, 1858, instead of 1853, as in the original edition. The preface in some places is worded differently in the two editions.
See also COUES (1), pt. 1, p. 649–51.

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Paper in Society Transactions

1859 BAIRD, S. F. Catalogue of North American birds chiefly in the Museum of the Smithsonian Institution.
In Smith. Inst. (1846). Misc. Coll. v. 2, art. 4, 22 p. 1859.

(B), v. 10, Serial no. 767, or 800

(1) *Fishes & Reptiles &*
(2) *Zoological Reports of Individual Expeditions*

(1)

1859 BAIRD, Spencer Fullerton, and GIRARD, Charles. General report upon the zoology of the several Pacific railroad routes: part 3–4: Reptiles by S. F. Baird . . . Fishes by Charles Girard . . . Washington, 1859. 16 + 14 + 400 p. 13 + 21 pl. 4°. (Pacific RR. Surv. v. 10).

See also above, History: ZOOLOGICAL COLLECTIONS.
Pt. 4, rev. in Amer. J. Sc. v. 80, (ser. 2, v. 30), p. 277–81. Sept. 1860.

CONTENTS:

pt. 3 BAIRD, S. F. . . . Reptiles. Wash. 1859. 16 p. 13 pl. [123 fig.]
For lack of room descriptive text was omitted and only the plates printed.

pt. 4 GIRARD, Charles. . . . Fishes. . . . Wash. 1858. 14 + 400 p. 21 pl.

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Zoological Reports of the Various Individual Expeditions Are Included as Follows:

GUNNISON & BECKWITH. Wash. 1857. no. 1–5. 27 + (1) p. (see v. 2).

WHIPPLE. Wash. 1859. pt. 6, no. 2–5. 64 p. 34 pl. (see v. 3–4).

PARKE. Wash. 1859. pt. 4, no. 1–2, 24 p. 4 pl. (see v. 7).

WILLIAMSON. Wash. 1859. pt. 4, no. 1–4, 97 p. 26 pl. (see v. 5.

WILLIAMSON & ABBOT. Wash. 1859. pt. 4, no. 4, 13 p. (see v. 6).

(B), v. 11, Serial no. 768 or 801

1859 WARREN, Gouverneur K[emble]. . . . Memoir to accompany the map of the territory of the United States from the Mississippi River to the Pacific Ocean, giving a brief account of each of the exploring expeditions since A. D. 1800, with a detailed description of the method adopted in compiling the general map . . . Washington, 1859. 120 + 4 p. pl. sect. fold. map. 4°. (Pacific RR. Surv. v. 11).

Rendered March 1, 1858.

An epitome of this Memoir is (In U. S. Geogr. Surv. West of 100th Meridian. Wash. 1889. appx. F, p. 513–97): WHEELER, G. M. Memoir upon the voyages, discoveries . . . to and at the west coast of America. . . . 1500 and 1880. See ANNOTATED BIBLIOGRAPHY: Wheeler.

See also above, History: WARREN'S MEMOIR.

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p. 92–109, ch. 5, Method of compiling the map.
p. 110– 15, ch. 6, General remarks upon the topography of the region west of the Mississippi River.
p. 116– 20 Alphabetical index.

Appx. 4 p. Topographical maps, profiles, and sketches to illustrate the various reports of surveys for railroad routes from the Mississippi River to the Pacific Ocean. Wash. 1859. 4 p.

(B), v. 12, Serial no. 992 or 1054 & 1055

Supplementary to v. 1 (q.v.)

(1) Senate ed., 992

1859 STEVENS, I[saac] I[ngalls]. . . . Supplementary report of explorations for a route for a Pacific Railroad near the forty-seventh and forty-ninth parallels of north latitude, from St. Paul to Puget Sound: 1853–55. Washington, 1859. 15 + 333 + 8 + 72 + 8 + 399 + 28 p. illus. 123 pl. maps, tab. 4°. (Pacific RR. Surv. v. 12).

In U. S. 35th Cong., 2d sess., Sen. Ex. Doc. v. 18, no. 46. Serial no. 992.

(This Senate ed. of v. 12 is in one volume.)

(2) House ed., 1054 & 1055

1860 ————. Narrative and final report of explorations for a route for a Pacific Railroad, near the forty-seventh and forty-ninth parallels of north latitude, from St. Paul to Puget Sound: 1853–55. Washington, May 1860. 2 v. illus. pl. maps. 4°. (Pacific RR. Surv. v. 12, 2 parts).

In U. S. 36th Cong., 1st sess., H. Ex. Doc. v. 11, pt. 1 & 2, no. 56. Serial no. 1054 & 1055.

(This House ed. of v. 12 is in two volumes.)

v. 1, pt. 1, 358 + 41 p. 70 col. pl. 2 maps prof. (Serial no. 1054)

v. 2, pt. 2–3, 76 + viii, [1], + 399 p. 6 + 47 pl. (Serial no. 1055)

In House ed., v. 1: Narrative; v. 2, Scientific.

For history, personnel, route, etc., see above, History: STEVENS' EXPEDITIONS.

For Stevens' Preliminary Report, see (B), v. 1, above, or (A), v. 1, (5), Serial no. 736.

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Pts. 2 & 3 were repr. in separate ed. by Messrs. Cooper & Suckley. See below, PAPERS IN SOCIETY TRANSACTIONS: 1859.

CONTENTS:

pt. 1 STEVENS, I. I. General report and narrative. Wash. 1859. 15 + 333 + 8 p. 70 pl. maps.
In Serial no. 1054 (H. ed.). Wash. 1860. 358 + 41 p.

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pt. 2 Botanical Report. Wash. 1859. 72 p. 6 pl. [40 fig.] (Serial 992.)
In Serial 1055. Wash. 1860. 76 p. 6 pl. [40 fig.] (H. ed.)

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no. 3, p. 46–67 COOPER, J. G. Catalogue of plants collected in Washington Territory. 6 pl. [40 fig.]
Note by Samuel ASHMEAD, p. 67.
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pt. 3 Zoological Report. Wash. 1859. 8 + 399 p. 47 pl. (Serial 992.)
Serial 1055, (H. ed.), 9 + 399 p. 47 pl.
Pagination same in both ed.

CONTENTS:

no. 1, p. 1– 72 LE CONTE, J. T. (!) Report upon insects collected on the survey. 2 pl. [35 fig.]
Chiefly Coleoptera.

no. 2, p. 73– 88 COOPER, J. G. Report upon the mammals collected on the survey. ch. 1.

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no. 3, p. 140–226 COOPER J. G. Report upon the birds collected on the survey: land birds. ch. 1. 1 pl.

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no. 4, p. 292–306 COOPER, J. G. Report upon the reptiles collected on the survey. 11 pl.

no. 5, p. 307– 68 SUCKLEY, George. Report upon the fishes collected on the survey. . . . 20 pl.

ch. 1 Salmonidae, p. 307–49.

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no. 6, p. 369– 86 COOPER, William. Report upon the Mollusca collected on the survey.

no. 7, p. 387– 89 COOPER, J. G. Report on the Crustacea collected on the survey.

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appx. 28 p. Meteorological etc. (Not in H. Ed.)

p. 27–8 Letter accompanying reports of Messrs. Cooper and Suckley. Feb. 3, 1859.

Papers in Society Transactions

1854 LE CONTE, J. L. Descriptions of some new Coleoptera from Oregon collected by Dr. J. G. Cooper, of the N. Pacific Railroad Expedition under Stevens. . . .

Rd before Phila. Acad. Nat. Sc. (1812), Feb. 21, 1854. In its Proc. v. 7, p. 16–20.

EVANS, John, and SHUMARD, B. F. Description of new fossil species from the Cretaceous formation of Sage Creek, Nebraska, collected by the North Pacific Railroad Expedition under Stevens. . . .

Rd before Phila. Acad. Nat. Sc. (1812), June 20, 1854. In its Proc. v. 7, p. 163–64.

————. Descriptions of new fossil species from the fresh water Tertiary formation of Nebraska, collected by the expedition . . . under Stevens. . . .

Rd before Phila. Acad. Nat. Sc. (1812), Aug. 1, 1854. In its Proc. v. 7, p. 164–65.

1859 LECONTE, J. L. Additions to the colepterous fauna of northern California and Oregon.

Rd before Phila. Acad. Nat. Sc. (1812), Oct. 18, 1859. In its Proc. v. 11, p. 281–92. 1859.

SUCKLEY, G[eorge], and COOPER, J. G. Reports on the natural history, climate and physical geography of Minnesota, Nebraska, Washington, and Oregon Territories, made in connection with the survey of a Pacific Railroad route, along the forty-seventh and forty-ninth parallels of latitude in 1853–4–5–6, under the command of Governor I. I. Stevens of Washington Territory. N. Y. Bailliere Bros., 1859. 399+26 p. 65 pl. charts. 4°.

A repr. of pt. 2–3 of v. 12. Rev. in Amer. J. Sc. v. 80, (ser. 2, v. 30), p. 138–39. July, 1860.

————. The natural history of Washington Territory and Oregon, with much relating to Minnesota, Nebraska, Kansas, Utah and California, between the thirty-sixth and forty-ninth parallels of latitude . . . with full catalogues and descriptions of the plants and animals collected from 1853–60 . . . this edition contains a new preface . . . a classified table of contents and the latest additions and corrections by the authors . . . in two parts. N. Y. Bailliere Bros., 1859–60. 2 v. in 1, illus. 60 pl. (17+72+399 p.) 4°.

Pub. in ed. of 100 copies. A Repr. of pts. 2 & 3 of v. 12, see above: (B), v. 12: Contents. Rev. in Amer. J. Sc. v. 80 (ser. 2, v. 30), p. 138–39. July, 1860.

PAGE'S EXPLORATION OF THE LA PLATA RIVER (1853)

History

Captain Thomas J. Page was ordered on a cruise of the river La Plata and its tributaries, the Parana, Paraguay, Uruguay, and Vermejo Rivers early in 1853. He and his party cruised in the steamer "Water-Witch," which left Norfolk, Va., Feb. 8, 1853, and returned to the United States in 1856.

Dr. Robert Carter was the surgeon of the expedition and made the various collections. The specimens were submitted to members of the Philadelphia Academy of Natural Sciences, and described in their Proceedings, (see PAPERS IN SOCIETY TRANSACTIONS, below), by Messrs. Cope, Cassin, Girard, Carson. Page's Report was rendered Aug. 4, 1856, and published the same year in both a House and a Senate edition.

Report

(1) Senate ed., Serial no. 876

1856 PAGE, Thomas J[efferson]. Synoptical report . . . on the late "exploration and survey of the river La Plata and its tributaries." Washington, 1856. (In U. S. 34th Cong., 3d sess., Sen. Ex. Doc., v. 3, no. 5, p. 430–65). Serial no. 876.

(2) House ed., Serial no. 894

————. Same . . . Washington, 1856. (In U. S. 34th Cong., 3d sess., H. Ex. Doc., v. 1, no. 1, p. 430–65). Serial no. 894.

CONTENTS:

p. 430–62 PAGE, T. J. Report.
p. 463–64 CASSIN, John. The birds of the expedition.
p. 464–65 GIRARD, Charles. The fishes. . . .
p. 465 CARSON, C. On the collections.

Paper in Society Transactions

1862 COPE, E. D. Catalogue of the reptiles obtained during the explorations of the Parana, Paraguay, Vermejo and Uruguay Rivers, by Capt. T. J. Page; and those procured by Lt. N. Michler . . . conducting the survey of the Atrato River. . . .

Rd before Phila. Acad. Nat. Sc. (1812), Sept. 9, 1862. In its Proc. v. 14, p. 346–59.

See also Michler's Exped. to Isthmus of Darien (1857.)

RODGERS & RINGGOLD NORTH PACIFIC EXPLORING EXPEDITION (1853)

History

"The North Pacific Exploring Expedition, as it is commonly called, has, next to the earlier expedition under Wilkes (see Wilkes U. S. Explor. Exped. (1838)), given more important zoological results than any similar explorations under the Navy Department. It sailed from the United States in June, 1853, and continued its work through 1854 and 1855, returning in 1856. The great value of its zoological results were due to the untiring zeal of its chief zoologist, Dr. William Stimpson, whose previous studies and explorations particularly fitted him for the position.

"This expedition was carried on under an appropriation from Congress in 1852, for 'building or purchase of suitable vessels, and for prosecuting a survey and reconnaissance, for naval and commercial purposes, of such parts of Bering Straits, of the North Pacific Ocean and the China Seas, as are frequented by American whale ships, and by trading vessels in their routes between the United States and China.'

"The necessary vessels were procured and equipped in the most substantial manner, and fitted out with all the instruments required for making observations in astronomy, hydrography, magne-

tism, and meteorology, together with the most complete equipment of natural history apparatus which had ever been taken to sea up to that time. Captain C[adwallader] Ringgold, who had formerly been connected with the United States Exploring Expedition under Captain Wilkes, was placed in command; but, being recalled to the United States, in 1854, he was superseded by Captain John Rodgers. The squadron was organized as follows: Sloop 'Vincennes,' bearing the flag of Commander Ringgold; Lieut. Rolando, commanding and executive officer; Lieut. J. M. Brooks, assistant astronomer; William Stimpson, zoologist to the expedition; F. H. Storer, chemist and taxidermist; Edward M. Kern, photographer and artist; steamer "John Hancock," Lieut. John Rodgers, commanding; Charles Wright, botanist to the expedition; A. H. Ames, assistant naturalist to the expedition; brig 'Porpoise,' Lieut. Alonzo B. Davis, commanding; schooner, 'Fenimore Cooper,' Acting-Lieut. H. R. Stevens, commanding; storeship, 'John R. Kennedy,' Lieut. Napoleon Collins, commanding.

"The vessels left Norfolk in June, 1853, and after touching at the Island of Madeira, proceeded to Hong Kong, China, via the Cape of Good Hope. On this passage, the sloop 'Vincennes' and the brig 'Porpoise' passed by the way of Van Diemen's Land, through the Coral Seas, and by the Caroline, Ladrone and Bashee Islands, and the steamer 'John Hancock,' the storeship and the tender, by way of the Straits of Sunda and Gaspar, the Carimata and Billeton passages, and the Sooloo Sea. The existence of a civil war in China at the time of the arrival of the expedition at Hong Kong, occasioned some delay in the progress of the exploring work, which was again resumed in the latter part of 1854.

"Subsequently the expedition proceeded northward, continuing the observations and collecting along the coasts of Japan, and Kamschatka, in Bering Straits, on the coast of California, and at Tahiti, from which latter place it turned directly home by way of the Cape of Good Hope. The natural history results were of great magnitude, filling many boxes and barrels, and embracing very many new and rare species. The extent and value of the zoological collections may be judged from the following number of species of each group obtained:

Vertebrates, 846; Insects, 400; Crustacea, 980; Annelids, 220; Mollusks, 2,359; Radiates, 406; total, 5,211.

"The plants in their original packages occupied a bulk of over 100 cubic feet. Soon after his return to the United States, Dr. Stimpson became the Director of the Chicago Academy of Sciences (1856), q.v., to which place nearly all of the invertebrate materials of the expedition were transferred. Considerable progress had been made in working up the results, and several short papers briefly descriptive of the more interesting groups of animals had been issued, when the memorable conflagration of 1871, which destroyed so large a part of Chicago, completely annihilated the entire collection there, as well as all of the MSS and the drawings which had been prepared for publication. The only collections of marine Invertebrates which escaped were the Corals and a few of the Crustacea, which had been left for study at the Smithsonian Institution, the Museum of Comparative Zoology, and at Yale College." RATHBUN, Richard. U. S. Nat. Mus. Bull. no. 27, p. 532–35. 1884. (In condensed form, in Smith. Inst. Misc. Coll. v. 49, Introd. 1907).

"The War has interfered with the completion of this Report, as the commander of the expedition, with several of his officers, are in active service on the Southern Coast and the appropriations for the department of natural science have ceased. The narrative by Capt. Rodgers has not yet been written. Many charts of portions of the Chinese and Japanese Seas, and also of parts of the N. E. Atlantic Coast to the Aleutian Islands are finished.

"The following reports on natural history are in progress: Zoology, by Wm. Stimpson, assisted by A. A. Gould, John Cassin, Dr. Edward Hallowell, Dr. P. R. Uhler, Mr. Barnard and Theodore Gill. The zoological portion will probably comprise about three volumes, quarto, with an atlas for each. A report on the botany, by Prof. Asa Gray and Charles Wright, is in progress." F. V. HAYDEN. Amer. J. Sc. v. 84 (ser. 2, v. 34), p. 98. July, 1862.

Below, under PAPERS ON NATURAL HISTORY, are to be found the various papers published in scientific transactions, etc., concerning the various collections made on the Expedition. An official Report was never published.

Bibliography

1857 STIMPSON, William. Notice of the scientific results of the expedition to the North Pacific Ocean, under the command of Com. John Rodgers.

In Amer. J. Sc. v. 73 (ser. 2, v. 23), p. 136–38. Jan. 1857.

1862 GOULD, Augustus Addison. Otia Conchologia: Descriptions of shells and Mollusks from 1839 to 1862. Bost. Gould & Lincoln, 1862. 2+256 p.

Shells of the Rodgers & Ringgold Exped.; repr. from Proc. Bost. Soc. Nat. Hist., on p. 101–78. See below, PAPERS ON NATURAL HISTORY.

1858 HEINE, Wilhelm. Die Expedition in die Seen von China, Japan, und Ochotsk unter Commando von Commodore John Rodgers, im auftrage der Regierung der Vereinigten Staaten unternommen in den jahren 1853 bis 1856, unter zuziehung der officiellen autoritaten und quellen; deutsche originale ausgabe von Wilhelm Heine . . . zugleich fortsetzung der reise um die erde nach Japan. Leipzig, H. Costenoble, 1858–59. 3 v. illus. pl. maps, charts, facsim.

1884 RATHBUN, Richard. The North Pacific Exploring Expedition. Washington, 1884. U. S. Nat. Mus. Bull no. 27. Appx. G. p. 532–35).

In his Survey of aquatic collections made by Americans, for the Great International Fisheries Exhibition, held in London, in 1883.

1884 NOURSE, J[oseph] E[verett]. American explorations in the ice zones: the Expeditions of De Haven, Kane, Rodgers, Hayes, Hall, Schwatka . . . prepared chiefly from the official sources . . . Boston, Lothrop, 1884. 578 p. illus. pl. maps.

ch. 4, p. 108–32, deal with the Explorations of Messrs. Rodgers & Ringgold.

Papers in Society Transactions

1855 STIMPSON, William. Descriptions of some of the new marine Invertebrata from the Chinese and Japanese Seas. . . .

Rd before Phila. Acad. Nat. Sc. (1812), June 12 & July 17, 1855. In its Proc. v. 7, p. 375–84, 385–95.

1856 ————. Notice of the scientific results of the Expedition to the North Pacific Ocean, under the command of Com. John Rodgers.

In Amer. J. Sc. (1818), v. 73 (ser. 2, v. 23), p. 136–38. Jan. 1857.

1857 ————. Prodromus descriptionis animalum evertebratorum quae in expeditione ad oceanum, Pacificum Septentrionalem a Republica Faederata missa (Cadwallader Ringgold) et Johanne Rodgers duce, observavit et descripsit; pt. 1–3.

Pt. 1 Turbellaria dendrocoela.
2 Turbellarieorum Nemertineorum.
3 Crustacea Maiodea.

Rd before Phila. Acad. Nat. Sc. (1812), Feb. 3, June 2, & Dec. 15, 1857. In its Proc. v. 9, p. 19–31, 159–65, 216–21.

Pt. 4–7, rd in 1858 (below, q.v)

1858 ————. Prodromus descriptionis animalum evertebratorum quae in expeditione ad Oceanum. . . . (cont.). . . . pt. 4–7.

Pt. 4 Crustacea Cancroidea et Corystoidea.
5 Crustacea Ocypodoidea.
6 Crustacea Oxystomata.
7 Crustacea Anomoura.

Rd before Phila. Acad. Nat. Sc. (1812), Mar. 9, Apr. 20, June 22, & Dec. 14, 1858. In its Proc. v. 10, p. 31–40, 93–110, 159–63, 225–52.

Pt. 8, rd Dec. 20, 1859 (below, q.v)

UHLER, P. R. Descriptions of new species of neuropterous insects collected by the Rodgers' North Pacific Expedition. . . .

Rd before Phila. Acad. Nat. Sc. (1812), Mar. 16, 1858. In its Proc. v. 10, p. 29–31.

STIMPSON, William. On a remarkable new form of brachyurous Crustacean from the coral reefs of Hawaii, Hapalocarcinus Marsupialis.

Rd before Bost. Soc. Nat. Hist. (1830), Oct. 20, 1858. In its Proc. v. 6, p. 412–13.

GOULD, A. A. Descriptions of shells collected in the North Pacific Exploring Expedition under Captains Ringgold and Rodgers.

Rd before Bost. Soc. Nat. Hist. (1830), Dec.1, 1858. In its Proc. v. 6, p. 422–26.

*BERKELEY, M. J., and CURTIS, M. A. Characters of new fungi collected in the North Pacific Exploring Expedition by Charles Wright.

Rd before Amer. Acad. A. & Sc. (1780), Dec. 14, 1858. In its Proc. v. 4, p. 111–30.

EATON, D. C. Characters of some new Filices, from Japan and adjacent regions collected by Charles Wright in the North Pacific Exploring Expedition under Capt. John Rodgers.

Rd before Amer. Acad. A. & Sc. (1780), Dec. 14, 1858. In its Proc. v. 4, p. 110–11.

GRAY, Asa. Diagnostic characters of new species of phaenogamous plants, collected in Japan by Charles Wright, botanist of the U. S. North Pacific Exploring Expedition . . . with observations upon the relations of the Japanese flora to that of North America and of other parts of the northern temperate zone.

Rd before Amer. Acad. A. & Sc. (1780), Dec. 14, 1858. In its Mem. n.s. v. 6, pt. 2, p. 377–452. 1858. Abstr. in its Proc. v. 4, p. 109.

GILL, Theodore. Prodromus descriptionis subfamiliae Gobinarum squamis cycloides piscium, cl. W. Stimpsono in mare Pacifico acquisitorum.

Rd before N. Y. Lyc. Nat. Hist. (1817), Dec. 20, 1858. In its Annals. v. 7, p. 12–6. Dec. 1858.

1859 GRAY, Asa. A series of illustrations of the botany of Japan in its relations to that of Central and Northern Asia, Europe and North America.

Rd before Amer. Acad. A. & Sc. (1780), Jan. 11 & Feb. 22, 1859. In its Proc. v. 4, p. 131–35, 171–79.

GOULD, A. A. New species of shells brought home by the North Pacific Exploring Expedition.

Rd before Bost. Soc. Nat. Hist. (1830), Apr. 6, 1859 et. seq. In its Proc. v. 7, p. 40–5, 138–42, 161–66.

GILL, Theodore. Description of new generic types of Cottoids from the collection of the North Pacific . . . Expedition under Rodgers. . . .

Rd before Phila. Acad. Nat. Sc. (1812), June 21, 1859. In its Proc. v. 11, p. 165–66.

SULLIVANT, W. S., and LESQUEREUX, Leo. Characters of some new Musci collected by Charles Wright in the North Pacific . . . Expedition. . . .

Rd before Amer. Acad. A. & Sc. (1780), Aug. 9, 1859. In its Proc. v. 4, p. 275–82.

*HARVEY, W. H. Characters of new algae, chiefly, from Japan and adjacent regions, collected by Charles Wright in the North Pacific Exploring Expedition under Capt. John Rodgers.

Rd before Amer. Acad. A. & Sc. (1780), Oct. 11, 1859. In its Proc. v. 4, p. 327–35.

STIMPSON, William. Prodromus descriptionis animalum evertebratorum quae in expeditione ad Oceanum . . . pt. 8.

Rd before Phila. Acad. Nat. Sc. (1812), Dec. 20, 1859. In its Proc. v. 12, p. 22–47, 1 pl.

Pt. 4–7 rd Mar. 9, et. seq. 1858 (see above.)

1860 *MUNRO, William. Characters of some new grasses collected at Hong Kong and vicinity by Charles Wright in the North Pacific Exploring Expedition. . .

Rd before Amer. Acad. A. & Sc. (1780), Jan. 25, 1860. In its Proc. v. 4, p. 362–63.

GILL, Theodore. Conspectus piscium in Expeditione ad Oceanum Pacificum Septentrionalem, C. Ringgold et J. Rodgers ducibus, Gulielmo Stimpson collectorum: Sicydianae.

Rd before Phila. Acad. Nat. Sc. (1812), Apr. 3, 1860. In its Proc. v. 12, p. 100–2.

UHLER, P. R. Hemiptera of the North Pacific Exploring Expedition. . .

Rd before Phila. Acad. Nat. Sc. (1812), June 12, 1860. In its Proc. v. 12, p. 221–31; & Proc. v. 13, p. 286–87.

GOULD, A. A. New species of shells brought home by the North Pacific Exploring Expedition. . .

Rd before Bost. Soc. Nat. Hist. (1830), June 20, et seq. In its Proc. v. 7, p. 323–40, 382–89, 400–9.

HALLOWELL, Edward, and COPE, E. D. Report upon the Reptilia of the North Pacific Expedition. . . ed. by E. D. Cope.
Rd before Phila. Acad. Nat. Sc. (1812), Oct. 2, 1860. In its Proc. v. 12, p. 480–510.

1861 GOULD, A. A. Descriptions of shells collected by the North Pacific Exploring Expedition. . .
Rd before Bost. Soc. Nat. Hist. (1830), Jan. 2, 1861. In its Proc. v. 8, p. 14–40.

UHLER, P. R. Homoptera of the North Pacific Expedition. . .
Rd before Phila. Acad. Nat. Sc. (1812), Sept. 10, 1861. In its Proc. v. 13, p. 282–84, 286–87.

STIMPSON, William. On new genera and species of starfishes of the family Pycnopodidae (Asteracanthion Mull. and Trosch.).
Rd before Bost. Soc. Nat. Hist. (1830), Dec. 4, 1861. In its Proc. v. 8, p. 261–73.

1862 CASSIN, John. Catalogue of birds collected by the U. S. North Pacific . . . Expedition . . . with notes and descriptions of new species.
Rd before Phila. Acad. Nat. Sc. (1812), May 20, 1862. In its Proc. v. 14, p. 312–28.

1863 AGASSIZ, Alexander. Synopsis of the Echinoids collected by Dr. William Stimpson, on the U. S. North Pacific Expedition. . . .
Rd before Phila. Acad. Nat. Sc. (1812), Dec. 22, 1863. In its Proc. v. 15, p. 352–61.

1865 VERRILL, A. E. Classification of Polyps: (Extract condensed from a Synopsis of the Polypi of the Ringgold and Rodgers Expedition . . .; pt. 1.
Com. to Essex Inst. (1848), Feb. 29, 1865. In its Proc. v. 4, p. 145–52.

————. Synopsis of the Polyps and Corals of the North Pacific. . . Expedition. . . under. . . Ringgold and Rodgers, from 1853 to 1856; collected by William Stimpson, naturalist to the expedition; with description of some additional species from the west coast of North America; pt. 2: Alcyonaria
Com. to Essex Inst. (1848), Feb. 29, 1865. In its Proc. v. 4, p. 181–96, 2 pl.

1866 ————. Synopsis . . . pt. 3: Madreporaria.
Com. to Essex Inst. (1848), Feb. 29, 1865. In its Communications. v. 5, p. 17–50, 2 pl. [15 fig.]. Pub. May 12, 1866.

1868 ————. Synopsis . . . pt. 4: Actinaria.
Com. to Essex Inst. (1848), Feb. 29, 1865. In its Communications. v. 5, 315–30, 3 pl. Pub. Dec. 1868.

1869 ————. Synopsis . . . pt. 5: Actinaria (cont.). . .
Com. to Essex Inst. (1848), Feb. 29, 1865. In its Communications. v. 6, p. 51–104, 2 pl. [11 fig.]. Pub. July–Nov. 1869.

1892 STIMPSON, William. Extract from the unpublished Report of . . . on the Crustacea of the North Pacific Exploring Expedition, 1853 to 1856. In U. S. Nat. Mus. Proc. v. 15, p. 276–77, 2 pl. 1892; & v. 16, p. 95–103, 5 pl. 1893.

1907 ————. Report on the Crustacea (Brachyura and Anomura, collected by the North Pacific Exploring Expedition, 1853–1856. Washington, 1907. 240 p. 26 pl. [146 fig.] (In Smith. Inst. Misc. Coll. v. 49) Pub. no. 1717.
Edited by Mary Rathbun, with a brief historical introduction.

WISCONSIN GEOLOGICAL SURVEYS (1853)

History

"Under the act passed by the Wisconsin legislature and approved March 25, 1853, Mr. Edward Daniels was appointed state geologist, but after the lapse of about a year, he was superseded by Dr. Percival, on August 12, 1854, who held the place to the time of his death in 1856."

"The Geological Survey having thus been left unfinished a new act was passed on March 3, 1857, providing for a geological and agricultural survey of the state—James Hall, Ezra S. Carr and Edward Daniels being appointed commissioners . . ." James HALL. Hist. Geol. Surv. Wisconsin (see Bibliography: 1862, below).

The three commissioners remained in joint control until April 2, 1860, when they were succeeded by Hall as superintendent. The Survey was discontinued in 1862, the legislature refusing to make further appropriations. (See MERRILL: 1920, under Bibliography below, for the differences and difficulties of the Survey during the regime of the Commissioners).

Daniels in 1853–54 was assisted by I. A. Lapham, A. A. Hayes and H. A. Tenney. They rendered a report in 1854. Dr. J. G. Percival's investigations yielded two reports.

Daniels in 1858 rendered a brief report as one of the Commissioners. Hall presented a report of progress for 1860, published in 1861.

Hall as superintendent engaged the services of J. D. Whitney, T. J. Hale and Charles Whittlesey. A joint report by Hall and Whitney appeared in 1862. Hall had another projected volume ready for the press during his incumbency but the legislature failed

to appropriate the necessary funds. A partial report appeared in 1871, (see REPORTS, below).

In 1863, John Murrish published a brief report on the lead regions. The expenses of the Daniels-Percival surveys were approximately $7,500, according to Merrill; those from 1857–62, totaled $36,000.

For critical notes on the various surveys, see MERRILL. First 100 yrs Amer. Geol. 1924. p. 319–21, 353–57.

Bibliography

1862 HALL, James. History and organization of the Geological Survey of Wisconsin. [Madison,] Jan. 1862. (In HALL, James & WHITNEY, J. D. Rept. on Geol. Wisconsin. v. 1, pref. p. 9–19)

See also his paper rd before Albany Inst. Jan. 7, 1862, entitled: On the geology and geological surveys of Wisconsin. In its Trans. v. 4, p. 295–96.

1877 WIGHT, O[rlando] W[illiams]. Brief history of previous geological surveys in Wisconsin. Madison, 1877. (In Wisconsin Geol. Surv. 1873–77. v. 2, p. 67–72)

1901 CHENEY, L[ellen] S[terling]. An historical review of the work done on the flora of the territory now included within the limits of Wisconsin. Milwaukee, Wis., Dec., 1900– Jan. 1901. (In Pharmaceutical Rev. v. 18, p. 557–65; & v. 19, p. 2–15)

1916 MARTIN, Lawrence. Chronological list of federal and state survey reports, with a few other early papers on the geology and physical geography of Wisconsin. Madison, 1916. (In Wisconsin Geol. & Nat. Hist. Surv. Bull. no. 36, Educ. ser. no. 4. p. 477–92)

1918 ALDEN, William C[linton]. The Quaternary geology of southeastern Wisconsin, with a chapter on the older rocks formations. Washington, Gov't print. office, 1918. (In U. S. Geol. Surv. Prof. Paper no. 106)

Chronologically arranged bibliography, p. 19–28.

1920 MERRILL, George P[erkins], ed. Wisconsin Geological Surveys. Washington, Gov't print. office, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 512–35, port.)

Comprehensive history of the surveys prior to 1885.

Reports

1854 DANIELS, Edward. First annual report of the geological survey of the state of Wisconsin. Madison, David Atwood, printer, 1854. 84 p. sect.

Extracts in Mining Mag. (1853), v. 2, p. 493–506. May, 1854.

CONTENTS:

p. 1–53 DANIELS, Edward. Report.
p. 53– 5 HAYES, A. A. Upon zinc ores of Wisconsin.
p. 56–65 DANIELS, Edward. Continuation of report.
p. 65– 6 HAYES, A. A. Report on the galena of Wisconsin.
p. 69–74 TENNEY, H. A. Communication—Dec. 1853.
p. 77–80 DANIELS, Edward. Circular of the state geologist, issued April 20, 1853.

1855 PERCIVAL, James G[ates]. Annual report of the geological survey of the state of Wisconsin. Madison, Beriah Brown, printer, 1855. 101 p. map.

Extracts in Mining Mag. (1853), v. 4, p. 345–61; & v. 5, p. 113–28, 217–29. June & Aug. 1855.

1856 ————. Second annual report of the geological survey of the state of Wisconsin. Madison, Calkins & Proudfit, printers, 1856. 111 p.

German ed., also pub. Percival's death took place May 2, 1856, and the report was a posthumous publication. Obituary of Percival, p. 7–8.

1858 DANIELS, Edward. Annual report of the geological survey of the state of Wisconsin for the year ending Dec. 31, 1857. Madison, Atwood & Rublee, 1858. 62 p. sect.

Rev. in Amer. J. Sc. v. 75 (ser. 2, v. 25), p. 275. Mar. 1858. Extr. also in Mining Mag. (1853), v. 10, p. 13–27. Jan. 1858.

HALL, James. Report of the Commissioners. . . . Madison, 1858. 12 p.

1861 ————. Report of the Superintendent of the Geological Survey, exhibiting the progress of the work, Jan. 1, 1861. Madison, 1861. 52 p.

According to F. B. Meek (Merrill, 1920, p. 524, ftnote), p. 1–16, pub. Feb., p. 17–32, Nov. 10, & 33–52, Dec. 1861.
See also Amer. Mus. Nat. Hist. Mem. v. 1, pt. 2, 1895, p. 39–74, pl. 4–12. Whitfield, R. P. Republication of descriptions of fossils from the Hall collection in the Amer. Mus. Nat. Hist., from the Report of Progress for 1861, of the Geol. Surv. of Wis. by James Hall, with illustrations from the original type specimens, not heretofore figured.

1862 HALL, James, and WHITNEY, J[osiah] D[wight]. Report on the geological survey of the state of Wisconsin. Albany, N. Y., 1862. 19 + 455 p. illus. 10 pl. 2 maps.

Preface dated Dec. 1861.

CONTENTS:

pref. p. 9–19 HALL, James. History of the survey.
p. 1– 72, ch. 1, ————. Physical geography and general geology.
p. 73– 92, 2, WHITNEY, J. D. Report on the lead region—introductory and historical.
p. 93–139, 3, ————. Physical geography and surface geology.
p. 140– 92, 4, ————. Stratigraphical geology.
p. 193–220, 5, ————. Mineralogy.
p. 221–420, 6, ————. Economical and mining geology.
p. 421– 23, 7, WYMAN, Jeffries. Observations . . . on Mammalian remains.
p. 424 , 8, LEIDY, Joseph. Observations on Mammalian remains. . . .
p. 425– 48, 9, HALL, James. Palaeontology of Wisconsin.

1863 MURRISH, John. State of Wisconsin—report on the geological survey of the lead region. [Milwaukee], 1863. 65 p.

1871 HALL, James. Geological Survey of Wisconsin: 1859–1863—Palaeontology—pt. 3: Organic remains of the Niagara group and associated limestones. Albany, 1871. 94 p.

Originally printed in N. Y. State Mus. Rept. for 1866. v. 20, p. 305–401, pl. 10–23. 1867.

KENTUCKY GEOLOGICAL SURVEY (1854)

History

By virtue of the acts of the Kentucky Legislature passed on and approved March 4, 1854, March 7, 1856, and February 17, 1858, provision was made for the organization and the continuation of a Geological and Mineralogical Survey of the State of Kentucky.

David Dale Owen was appointed state geologist on April 26, 1854, and served throughout the life of the survey, which was suspended in 1860, due to the approaching Civil War. Owen was allowed by the terms of the original act to engage two assistants, and those selected were Robert Peter, chemist, and Sidney S. Lyon, topographer. Subsequently he engaged Leo Lesquereux, palaeobotanist, E. T. Cox, geologist, Joseph Lesley, topographer. In 1859, Lesquereux was assisted by Alfred Owen and T. C. Downie.

Owen and his scientific corps rendered four reports covering the six years of 1854–59, published as shown below under REPORTS (q. v.)

Peter received his appointment on May 2, 1854 and Lyon, his, on May 25, 1854. They submitted reports which were published in all four of the Survey Reports. Lesquereux's appeared in the third and fourth volumes; Cox's in the third; Joseph Lesley, Jr.'s in the fourth.

See also MERRILL, (1) p. 443–44, for a review of the geological contents of the Reports. See Bibliography: 1920: Merrill, below, for a comprehensive history of the state surveys prior to 1885, with reprints of the original acts. See also below PAPERS IN SOCIETY TRANSACTIONS. Below in the Bibliography are given papers relating to the geological survey of the state which were published in the Kentucky State Documents. See also HASSE, (2), Index Econ. Material Ky. Jan. 1910. p. 303–25, for a complete list. See also MERRILL. First 100 yrs Amer. Geol. 1924. p. 321–23.

According to Merrill, the state expended during the period of the survey, the sum of $55,000.

Bibliography

1838 KENTUCKY. Report on action under resolution empowering governor to appoint competent person to make a geological reconnaissance of the mineral regions of the state. 1838. (In Gov.'s Message for 1838)

————. Report of committee on internal improvement on the expediency of a geological survey of the state. 4 p. (In Ky. Docs. 1837–38)

1839 MATHER, W[illiam] W[illiams]. Report on the Geological Reconnaissance of Kentucky made in 1838. 1839. 40 + 4 p. (In Ky. Sen. Jour. 1838–39. appx. p. 253–92)

Also in House Jour. appx. p. 239–78.

Contents discussed in Merrill, p. 102–3 (see Bibliography: 1920: Merrill, below).

1846 KENTUCKY. Report of committee on agriculture on the bill to provide for a geological survey of the state. (In Sen. Jour. 1845–46. p. 245–47)

1847 YANDELL, L. P., PIRTLE, Henry, and GOODWIN, S. S. . . . Memorial from the Kentucky Historical Society on the Geological Survey of Kentucky . . . with extracts from letters by . . . Benjamin Silliman, C. T. Jackson, D. D. Owen, J. G. Norwood . . . January 29, 1847. (In Ky. Docs. 1846–47. p. 561–73)

Contents discussed in Merrill, p. 103–4 (see Bib.: 1920: Merrill, below).

YANDELL, L. P., and SHUMARD, B. F. Contributions to the geology of Kentucky. Louisville, Prentice and Weissinger, 1847. 38 p. 1 pl.

1848 KENTUCKY. Report on importance of legislative action relative to the geological survey of the state. 1848. (In House Jour. Regular sess., 1847. p. 237–39).

————. Recommendation for appropriation for general geological survey of the state. (In Gov.'s Message. Dec. 1848)

1849 ————. Comment on the advantages of a geological survey of the state. (In Gov.'s Message. 1849)

1850 AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. Memorial on the importance and necessity of establishing state geological survey. (In Ky. Docs. 1849–50. p. 688–90)

1853 PETER, Robert, and others. Memorial of the Agricultural Associations of the state and many citizens to the General Assembly of Kentucky . . . on the institution of a geological survey of the state . . . with an accompanying geological map of the state . . . 1853. 16 p. col. map.

Contents discussed by Merrill, p. 104–5 (see below, 1920: Merrill).

MATHER, W[illiam] W[illiams]. A geological examination of the line of the (proposed) Lexington and Big Sandy Railroad, in the employ of the company . . . 1853.

Contents discussed in Merrill, p. 105 (see below, 1920).

1858 OWEN, David Dale. Statement of . . . amounts drawn from the Treasury for the prosecution of the state geological survey . . . 1858. 9 p. (In Ky. Docs. 1857–58. v. 3, Doc. no. 10)

1877 SHALER, N[athaniel] S[outhgate]. Operations of the Survey from 1854 to 1860. Frankfort, Ky., 1877. (In Kentucky Geol. Surv. Repts of Progress. ser. 2, v. 3, pt. 2, p. 33–43 (p. 3–13)).

See also pt. 8, p. 415–25. SHALER, N. S. Report on the unfinished work of the Survey of the Commonwealth under the direction of David Dale Owen.

1920 MERRILL, George P[erkins], ed. Kentucky geological surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 100–24, port.)

Comprehensive account of the surveys prior to 1885, with reprints of original acts, history of efforts prior to the institution of the first survey, etc.

1921 JILLSON, Willard Rouse. A history of the Kentucky Geological Survey (1838–1921). Frankfort, Ky., Sept., 1921. (In Kentucky State Hist. Soc. Register. v. 19, no. 57, p. 90–112, 2 pl. port.)

1923 ————. Geological research in Kentucky: a summary account of the several geological surveys of Kentucky, including a complete list of their publications and a general bibliography of 806 titles pertaining to Kentucky geology. Frankfort, Ky., Kentucky Geol. Surv., 1923. [8] + 228 p. illus. pl. port, maps. (In Ky. Geol. Surv. Geol. Repts. ser. 6, v. 15)

Bibliography, ch. 4, p. 85–148, arranged alphabetically by author.

Reports

1st

1856 OWEN, David Dale, PETER, Robert, and LYON, Sidney S. Report of the geological survey in Kentucky, made during the years 1854 and 1855, by David Dale Owen, principal geologist, assisted by Robert Peter, chemist, and S. S. Lyon, topographical assistant. Frankfort, Ky., A. G. Hodges, 1856. 416 p. pl. maps, tab. 4°.

Rev. in Amer. J. Sc. v. 73 (ser. 2, v. 23), p. 272–76. Mar. 1857.

CONTENTS:

p. 5–248 OWEN, D. D. General report.
p. 251–379 PETER, Robert. Chemical report of the minerals, rocks and soils. Written Sept. 24, 1855.
p. 381–400 LYON, S. S. Topographical geological report of that portion of Kentucky including Union and part of Crittenden Counties, surveyed during the years 1854 and 1855.
p. 401– 16 Index.

2nd

1857 ————. Second report of the geological survey in Kentucky made during the years 1856 and 1857, by David Dale Owen, principal geologist, assisted by Robert Peter, chemist, and S. S. Lyon, topographical assistant. Frankfort, Ky., A. G. Hodges, 1857. 391 p. illus. map. 4°.

Abstr. in Amer. J. Sc. v. 75 (ser. 2, v. 25), p. 283–84. Mar. 1858.

CONTENTS:

p. 5– 6 OWEN, D. D. Introductory letter.
p. 7–114 ————. General geological report.
p. 9– 27, 29–51, Agricultural geology, ch. 1 & 2.
p. 53– 83, Chemical economic geology, ch. 3.
p. 85–114, Stratigraphical geology, ch. 4.
p. 117–300 PETER, Robert. Second chemical report of the ores, rocks, soils, coals, mineral waters of Kentucky. Dec. 8, 1856.
p. 303– 76 LYON, S. S. Topographical geological report of the progress of the survey of Kentucky through Hopkins,

Crittenden, Caldwell, Greenup, and Carter Counties, made during the years 1856 and 1857.

p. 377– 91 Index.

3rd

1857 OWEN, David Dale, and others. Third report of the geological survey in Kentucky, made during the years 1856 and 1857 . . . Frankfort, Ky., A. G. Hodges, 1857. 589 p. & atlas of 10 pl. 4°.

CONTENTS:

p. 5–171 OWEN, D. D. General geological report.

p. 173–420 PETER, Robert. Third chemical report of the soils, marls, ores, rocks, coals, mineral waters of Kentucky.

p. 423– 63 LYON, S. S. Topographical geological report in the counties of Greenup, Carter, Lawrence and Hancock, for the year 1857.

p. 465– 98 ————. Palaeontological report.

p. 499–556 LESQUEREUX, Leo. Palaeontological report of the fossil flora of the coal measures of the western Kentucky coal field. 2 pl. [14 fig.]

p. 557– 76 COX, E. T. Palaeontological report of coal measure Mollusca. illus.

p. 577– 89 Index.

————. Maps and illustrations referred to in vols. II & III of the Report of the Geological Survey of Kentucky. Frankfort, Ky., 1857. 10 pl. 4°.

4th

1861 ————. Fourth report of the geological survey in Kentucky during the years 1858 and 1859 . . . Frankfort, Ky., J. B. Major, 1861. 617 p. 4°.

Rev. of Lesquereux & Lesley's reports in Amer. J. Sc. v. 82 (ser. 2, v. 32), p. 118–22, tab. July, 1861.

CONTENTS:

p. 3– 37 OWEN, D. D. Geological report.

p. 39–321 PETER, Robert. Fourth chemical report of the soils, marls, ores, rocks, coals, iron furnace products, mineral waters, etc. Written Feb. 4, 1860.

p. 331–437 LESQUEREUX, Leo. Report of the fossil flora and of the stratigraphical distribution of the coal in the Kentucky coal fields. 4 pl. sect.

Written Jan. 31, 1860. Assisted by Alfred OWEN, and T. C. DOWNIE.

p. 439– 94 LESLEY, Joseph, Jr. Topographical and geological report of the country along the outcrop base line following the western margin of the eastern coal-field . . .

from a survey during 1858–59. sect. Written Nov. 1, 1859.

p. 495–599 LYON, S. S. Topographical geological report . . . for the years 1858 and 1859.

p. 601– 16 Index.

Papers in Society Transactions

1857 OWEN, D. D. Geological report in relation to the soils of Kentucky. In Mining Mag. (1853), v. 8, p. 424–34. May, 1857.

1860 LYON, S. S. Remarks on the stratigraphical arrangement of the rocks of Kentucky, from the Catenipora escharoides horizon of the Upper Silurian period, in Jefferson County, to the base of the productive coal measures in the eastern edge of Hancock County.
Rd before Acad. Sc. St. Louis (1856), May 21, 1860. In its Trans. v. 1, p. 612–21. 1860.

LYON, S. S., and CASSEDAY, S. A. Description of nine new species of Crinoidea from the subcarboniferous rocks of Indiana and Kentucky.
In Amer. J. Sc. (1818), v. 79 (ser. 2, v. 29), p. 68–79. Jan. 1860.

LYON, S. S. Descriptions of four new species of Blastoidea, from the subcarboniferous rocks of Kentucky.
Rd before Acad. Sc. St. Louis (1856), May 21, 1860. In its Trans. v. 1, p. 628–34, 1 pl.

LESQUEREUX, Leo. On the formation of coal.
In Mining Mag. (1853), ser. 2, v. 1, p. 264–84. Feb. 1860.

1861 ————. Descriptions of new Palaeozoic fossils from Kentucky and Indiana.
Rd before Phila. Acad. Nat. Sc. (1812), Dec. 10, 1861. In its Proc. v. 13, p. 409–14, 1 pl.

MARCY'S EXPLORATION OF THE BIG WICHITA (1854)

History

In the summer of 1854, Capt. R. B. Marcy was ordered to conduct an expedition to the sources of the Brazos and the Big Wichita Rivers, in Texas, in connection with the locating of lands for the Indians of Texas.

He was accompanied by G. G. Shumard as geologist, surgeon and naturalist of the party. Marcy's Report was rendered Jan. 15, 1855, and was published early in 1856.

For details of the route followed, see WARREN, p. 85. W. P. Blake described the geological collections made by Shumard. W. B. Parker, a member of the expedition, published a volume in 1856 on the expedition (see Bibliography, below: 1856).

Bibliography

1856 PARKER W[illiam] B. Notes taken during the expedition commanded by Capt. R. B. Marcy, U. S. Army, through unexplored Texas, in the summer and fall of 1854. Phila. 1856. 12+242 p.

1859 MARCY, Randolph B[arnes]. Erforschung des Quellesgelietes das Big Wichita und Brazox im innern von Nord-America. 1859. (In Petermann. Mittheil. p. 36–41)

Report

1856 MARCY, Randolph B[arnes]. Report of an expedition to the sources of the Brazos and Big Wichita Rivers, during the summer of 1854. Washington, 1856. 48 p. map. (In U. S. 34th Cong., 1st sess., Sen. Ex. Doc. v. 12, no 60) Serial no. 821.

CONTENTS:

p. 46–7 BLAKE, W. P. Notice of the geological collection.
p. 48 SHUMARD, G. G. Catalogue of the geological collection made by . . . near Fort Belknap, Texas.

POTTSVILLE SCIENTIFIC ASSOCIATION OF SCHUYLKILL COUNTY, POTTSVILLE, PA. (1854)

History

The Pottsville Scientific Association of Schuylkill County, Pennsylvania, was organized on the 10th of October, 1854. The object of the Association was "to be devoted to the development of the scientific interests generally; but particularly in relation to those branches of knowledge usually denominated natural science."

The officers for 1855 as published in its Bulletin were James S. Carpenter, president; Samuel Lewis, vice-president; A. Heger and Peter W. Sheafer, curators; chairmen of natural history committees, Samuel Lewis, geology; Joseph H. Wythes, palaeontology; Thomas W. Yardley, mineralogy; John H. Adam, conchology. C. Little was also an active member.

"The effort proved successful for about ten years, during which time a valuable scientific library was accumulated, together with a large collection of minerals and curios. On the dissolution of the Society, the mineral cabinet was presented to Lafayette College, and the library was placed in charge of the Pottsville Athanaeum." From History of Schuylkill Co., Pa. ed., by A. W. Schalck & D. C. Henning. 1907. p. 179.

Below are given a list of the papers on natural history to be found in its Bulletin or published as separates.

Bibliography

1855 POTTSVILLE SCIENTIFIC ASSOCIATION. Bulletin . . . for January and February, 1855, including the Constitution and By-Laws, together with the officers and members, and a catalogue of the library and museum. Pottsville, Pa., 1855. [16 p.] charts.

Copy examined at the Library of Congress.

Papers on Natural History

1855 *DESOR, Edward. The falls of Niagara and their retrograde movement. Bull. p. 5–10, charts. Rd Feb. 17.

Transl. from Bull. of Acad. Sc. Neuchatel. v. 3, p. 166–71. 1853.

LEWIS, Samuel. A few remarks on the greensand formation of New Jersey. Bull. p. 11–3. Rd Mar. 10.

————. The cause of certain markings in coal. Bull. p. 14. Rd Mar. 24.

WARREN, John. Studies in organic morphology. Phila. 1857. 58 p. (Rd in 1855.)

Rev. in Amer. J. Sc. v. 74 (ser. 2, v. 24), p. 443–44, illus. Nov. 1857.

1858 SHEAFER, P. W. Coals and collieries of Schuylkill County, Pa. Rd June 19.

In Mining Mag. (1853), v. 11, p. 19–26. July, 1858.

LESQUEREUX, Leo. The fossil plants of the coal measures of the United States, with descriptions of the new species in the Cabinet of the Pottsville Scientific Association, Pa. 1858. Pottsville, Pa., 1858. 24 p. pl. Rd Feb. 13.

Includes on p. 24, Impressions of vegetables on coal, by Samuel LEWIS.

Paper rev. in Amer. J. Sc. v. 76 (ser. 2, v. 26), p. 112–13. 1858.

IOWA GEOLOGICAL SURVEY (1855)

History

The Geological Survey of Iowa was organized by legislative enactment, approved January 23, 1855, by which James Hall was appointed state geologist for a period of two years. At the expiration of this period Hall was granted a further appropriation and the work on the survey continued through 1858.

At the close of 1856, Hall rendered a brief report of progress, and submitted a Final Report in two volumes, November, 1857,

which was published the following year. J. D. Whitney was selected by Hall as chemist and mineralogist; A. H. Worthen, F. B. Meek, J. B. Hall, E. Hungerford, Edwin A. Cooley and R. P. Whitfield served in various capacities. The survey was discontinued in 1859. According to MERRILL (see Bibliography: 1920, below) about $15,000 was expended during the period of the survey.

See also MERRILL (1), p. 465–69, for a critical review of the contents of the report of the survey. See also MERRILL. First 100 yrs Amer. Geol. 1924. p. 345–50.

See below PAPERS IN SOCIETY TRANSACTIONS, that of 1856, being Hall's progress report referred to, above.

Bibliography

1893 KEYES, Charles Rollin. Bibliography of Iowa geology. Des Moines, 1893. (In Iowa Geol. Surv. 1st Ann. Rept. for 1892. v. 1, p. 209–472)

Dictionary arrangement of entries. Later ed., see, below, 1913.

1906 ANDERSON, Rudolph Martin. The birds of Iowa. Davenport, Iowa, July 24, 1906. (In Davenport Acad. Sc. Proc. v. 11, p. 125–417, illus. map.)

Historical work, p. 128–31. Bibliography, chronologically arranged, p. 393–403.

1913 KEYES, Charles [Rollin]. . . . Annotated bibliography of Iowa geology and mining. Des Moines, Pub. for Iowa Geol. Surv., 1913. 908 p. (In Iowa Geol. Surv. v. 22)

CONTENTS:

p. 15– 44, ch. 1, Geographical explorations of Iowa-land.
p. 45– 88, ch. 2, Geologic reconnaissance.
p. 89–121, ch. 3, Historical sketch of mining.
p. 123– 55, ch. 4, Systematic geological surveying.
Contains also Bibliography of the contents of the Publications of the Survey.
p. 157–908 Annotated bibliography.
Dictionary arrangement of authors, subjects & titles.
(See previous edition, above, under 1893.)

1919 ————. A century of Iowa geology. Des Moines, Iowa, 1919. (In Iowa Acad. Science. Proc. for 1919. v. 26, p. [407]–40, 13 port.)

Historical resumé of the various individual contributions.

1920 MERRILL, George P[erkins], ed. Iowa Geological Surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 85–97, port.)

History of surveys prior to 1885.

Reports

1856 HALL, James. Progress report . . .

See below PAPERS IN SOCIETY TRANSACTIONS: 1856.

1858 HALL, James, and WHITNEY, J[osiah] D[wight]. Report on the Geological Survey of the State of Iowa; embracing the results of investigations made during portions of the years 1855, 56, and 57 . . . Burlington, Iowa, Pub. by authority of the Legislature of Iowa, 1858. 1 v. in 2 pts. illus. 29 pl. [241 fig.] 3 maps. 4°.

Pt. 1, Geology. 15 + [1] + 1–472.
2, Palaeontology, 473–724 + 4 + 30 p.

Preface dated Nov. 1857. Presented to printer, Sept. 1858.

Report rev. in Amer. J. Sc. v. 77 (ser. 2, v. 27), p. 103–17. Jan. 1859.

CONTENTS:

Part 1: Geology

pref. p. 5– 7		HALL, James. Address to the Hon. Ralph P. Lowe.
pref. p. 9–10		————. Address to the Hon. James W. Grimes.
pref. p. 11– 5		————. Organization of the survey.
p. 1– 34,	ch. 1,	WHITNEY, J. D. Physical geography.
p. 35– 44,	2,	HALL, James. General geology: General remarks on the geology of the northwest, and the relations of the formations of those of the east.
p. 45–146,	3,	————. Geology of Iowa: general reconnaissance. illus.
p. 147– 82,	4,	WORTHEN, A. H. Geology of the Des Moines Valley. illus. Report made Dec. 1856.
p. 183–258,	5,	————. Geology of certain counties: report for the year 1857; embracing the results of an examination in the counties of Lee, Des Moines, Henry, Van Buren, Jefferson, Washington, and Wapello. illus. Made Nov. 1857.
p. 259–323,	6,	WHITNEY, J. D. County geology continued: central and northern counties of the eastern half of the state.
p. 324–472	7,	————. Chemistry and economical geology. illus.

Part 2

p. 473–724,	8,	HALL, James. Palaeontology of Iowa. General remarks; fossils of the Hamilton group; the

Chemung group; Burlington limestone; the Keokuk limestone; the St. Louis limestone; the Kaskaskia limestone; and of the coal measures.

Papers in Society Transactions

1856 HALL, James. On the carboniferous limestones of the Mississippi Valley.
Rd before Amer. Assoc. Adv. Sc. (1848), in Aug., 1856. In its Proc. v. 10, pt. 2, p. 51–69, illus. Albany, N. Y. 1857.
Extracts also in Amer. J. Sc. (1818), v. 73 (ser. 2, v. 23), p. 187–203, illus. Mar. 1857; & in Mining Mag. (1853), v. 9, p. 529–42. Dec. 1857.

1859 WHITNEY, J. D. The lead deposits of the Mississippi Valley.
In Mining Mag. (1853), ser. 2, v. 1, p. 90–102, 169–84, 287–99. Dec. 1859 & Jan.–Feb. 1860.

1862 WORTHEN, A. H. Remarks on the age of the so-called "Le Clare limestone" and "Onondaga salt-group" of the Iowa Report.
In Amer. J. Sc. (1818), v. 83 (ser. 2, v. 33), p. 46–8. Jan. 1862.

POPE'S EXPEDITION ALONG THE 32ND PARALLEL FOR THE BORING OF ARTESIAN WELLS (1855)

History

"Capt. John Pope organized a party under instructions from the Secretary of War, January 5, 1855, to ascertain the practicability of constructing artesian wells upon the arid plains of Texas and New Mexico. . . .

"The first operations were from the Rio Grande, east to the headwaters of the Canadian, the Red River, the Brazos, and the Colorado, with their tributaries. . . ." A. A. HUMPHREYS. p. 31–3. (In PACIFIC RR. SURV. v. 7, Serial no. 764–797. Nov. 1856.)

The expedition was carried on between May, 1855, and the latter part of 1856. Dr. George G. Shumard accompanied the party in the capacity of geologist. No official report seems to have been rendered by Pope. Shumard made collections and described the geology of the regions traversed. The collections were described by his brother, B. F. Shumard, and H. A. Prout, of the Academy of Science of St. Louis (1856). See below, PAPERS IN SOCIETY TRANSACTIONS.

See also MERRILL, (1), p. 444, for a discussion of the geological aspects of the Expedition. See below for brief Preliminary

Report. See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 323.

Many of the specimens collected were described in the Zoological Reports of the Pacific Railroad Surveys (1853), q. v., v. 8–10.

See also under TEXAS GEOL. SURV. (1858): Bibliography: 1886. G. G. Shumard.

Preliminary Report

1857 POPE, John. Report of . . . on artesian well experiment . . . Washington, 1857. (In U. S. 35th Cong., 2d sess., Sen. Ex. Doc. v. 2, no. 1, pt. 1, p. 582–83, 590–608) Serial no. 975.
In the Report of the Secretary of War.

Papers in Society Transactions

1857 SHUMARD, G. G. Observations on the geological formations of the country between the Rio Pecos and the Rio Grande, in New Mexico . . . near the line of the 32nd parallel, being an extract of a portion of the geological report of the expedition under Capt. Pope in 1855 . . .
Rd before Acad. Sc. St. Louis (1856), Nov. 16, 1857. In its Trans. v. 1, p. 273–89. 1858.

1858 PROUT, H. A. Description of new species of Bryozoa from Texas and New Mexico . . . collected by Dr. G. G. Shumard, geologist to the expedition for the boring of artesian wells along the 32nd parallel . . . under Capt. Pope . . .
Rd before Acad. Sc. St. Louis (1856), Mar. 22, 1858. In its Trans. v. 1, p. 228–35. 1858.

SHUMARD, B. F. Notice of new fossils from the Permian strata of New Mexico and Texas, collected by G. G. Shumard . . . on the United States Expedition along the 32nd parallel . . .
Rd before Acad. Sc. St. Louis (1856), Mar. 22 & May 9, 1858. In its Trans. v. 1, p. 290–97, 387–403, 1 pl. [10 fig.] 1858 & 1859.

SHUMARD, G. G. The geological structure of the "Jornada del Muerto," New Mexico, being an abstract from the geological report of the expedition under Pope . . .
Rd before Acad. Sc. St. Louis (1856), July 26, 1858. In its Trans. v. 1, p. 341–55. 1859.

WARREN'S SIOUX EXPEDITION (1855)

History

"While making this reconnaissance I was attached to the staff of General Harney, commanding the 'Sioux Expedition'; and was assisted by P. Carrey and J. H. Snowden. . . . I left St. Louis on

the 7th of June, 1855, and proceeded up the Missouri to Fort Pierre. . . . On the 7th of August, in company with Mr. Carrey, I left Fort Pierre for Fort Kearney, which point was reached on the 21st of August. Here joining General Harney, I accompanied the army along the Platte on the route to Fort Laramie. . . . From Fort Laramie the expedition went to Fort Pierre, over the route along White River, through the Bad Lands, and along the ridge between the Little Missouri and Big Shyenne Rivers. From Fort Pierre, I returned to the mouth of the Big Sioux, through Minnesota, in company with a train under Capt. Van Vliet.'' G. K. WARREN, p. 87–8. (In Pacific RR. Surv. v. 11, 1859.)

Warren's Report was rendered March 15, 1856. He made some natural history collections, which were described by F. V. Hayden and others. For review of geological contents, see MERRILL, (1), p. 586–87. Warren continued explorations in this region and adjacent country during 1856–58, for which see WARREN'S EXPLORATIONS IN NEBRASKA & DACOTAH (1856). See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 503–4.

See, below, PAPERS IN SOCIETY TRANSACTIONS, for a number of papers on the collections made by Warren and his party, published prior or subsequent to his official report.

Report

1856 WARREN, G[ouverneur] K[emble]. Report of his exploration of the country between the Missouri and Platte Rivers and the Rocky Mountains: . . . the Sioux Expedition of explorations in the Dacotah Country . . . 1855. Washington, 1856. 79 + 6 p. illus. (In U. S. 34th Cong., 1st sess., Sen. Ex. Doc. v. 13, no. 76). Serial no. 822.

Rendered Mar. 15, 1856. Rev. in North Amer. Rev. v. 87, p. 66–94. July, 1858.

CONTENTS:

p. 5–62 WARREN, G. K. Report of . . . the Sioux Expedition of explorations in the Dacotah country, 1855.

p. 63– 6 BLAKE, W. P. Geological note on section, in ravine of L'Eau Qui Court River (Rapid River). appx. E. sect.

p. 66–79 HAYDEN, F. V. . . . Brief sketch of the geological and physical features of the Upper Missouri River, with some notes on its soil, vegetation, animal life . . . appx. E. Written Mar. 15, 1856.

appx. 6 p. Index.

Papers in Society Transactions

1856 MEEK, F. B., and HAYDEN, F. V. Descriptions of new fossil species of Mollusca collected by Dr. F. V. Hayden in Nebraska Territory, together with a complete catalogue of all the remains of Invertebrata hitherto described and identified from the Cretaceous and Tertiary formations of that region.

Rd before Phila. Acad. Nat. Sc. (1812), Nov. 11, 1856. In its Proc. v. 8, p. 265–86.

LEIDY, Joseph. Notices of extinct Vertebrata discovered by F. V. Hayden, during the expedition to the Sioux Country, under . . . Warren.

Rd before Phila. Acad. Nat. Sc. (1812), Dec. 23, 1856. In its Proc. v. 8, p. 311–12.

1857 MEEK, F. B., and HAYDEN, F. V. Descriptions of new species and genera of fossils collected by F. V. Hayden in Nebraska Territory under the direction of Lieut. G. K. Warren . . . with some remarks on the Tertiary and Cretaceous formations of the northwest and the parallelism of the latter with those of other portions of the United States and Territories. (Explorations of the War Department.)

Rd before Phila. Acad. Nat. Sc. (1812), April 28, 1857. In its Proc. v. 9, p. 117–48.

HAYDEN, F. V. Note explanatory of a map and section illustrating the geological structure of the country bordering on the Missouri River, from the mouth of the Platte River to Fort Benton, in lat. 47° 30′ N. Long., 110° 30′ W. . . . (Explorations under the War Dept.)

Rd before Phila. Acad. Nat. Sc. (1812), May 12, 1857. In its Proc. v. 9, p. 109–16, map.

1860 MEEK, F. B., and HAYDEN, F. V. Descriptions of new organic remains from the Tertiary, Cretaceous and Jurassic rocks of Nebraska.

Rd before Phila. Acad. Nat. Sc. (1812), May 15, 1860. In its Proc. v. 12, p. 175–85.

————. Systematic catalogue with synonomy, etc., of the Jurassic, Cretaceous and Tertiary fossils collected in Nebraska by Warren's Exploring Expedition.

Rd before Phila. Acad. Nat. Sc. (1812), Oct. 2, 1860. In its Proc. v. 12, p. 417–32.

1861 HAYDEN, F. V. On the geology and natural history of the Upper Missouri.

Rd before Amer. Phil. Soc. (1769), July 19, 1861. In its Trans. n. s. v. 12, art. 1, p. 1–218, illus. col. map. 1863.

Contains "Reports of Progress" for this Exped., that of Warren's "Explorations in Nebraska & Dacotah (1856), q. v., and Raynold's Explor. Yellowstone (1859), q. v.

CONTENTS:

Historical introduction, p. 1–3.

pt. 1, Description of the geology of the routes.

ch. 1–6, p. 5–33.
2, Rocks of Nebraska and Kansas.
ch. 7–14, p. 33–137.
3, Zoology and botany.
ch. 15–18, p. 138–212.

INCLUDES:

BINNEY, W. G. Examination of the shells. p. 179–82.
ENGELMANN, George. Botany. ch. 18, p. 182–209.
DEWEY, Chester. List of Nebraska Carices. p. 210–12.
Other specimens, zoological and palaeontological, described by BAIRD, COPE, GILL, LEA, NEWBERRY, & MEEK.

1862 ————. Contributions to the ethnography and philology of the Indian tribes of the Missouri Valley.

Rd before Amer. Phil. Soc. (1769), May 16, 1862. In its Trans. n. s. v. 12, art. 3, p. 231–461, 2 pl. map. 1863.
See also Warren's Exped. to Nebraska & Dacotah (1856) & Raynolds' Exped. to the Yellowstone (1859).
Abstr. of paper is in Amer. J. Sc. (1818), ser. 2, v. 34, p. 57–66. July, 1862.

1864 ————. Palaeontology of the Upper Missouri: a report upon collections made principally by the expeditions under the command of Lieut. G. K. Warren, in 1855 and 1856; part 1: Invertebrates.

Acc. by Smith. Inst. (1846), May, 1864. In its S. C. v. 14, art. 5, 146 p. 5 pl.
For dates of issue of parts, and contents, see under SMITH. INST. (1846), May, 1864.

WISCONSIN NATURAL HISTORY ASSOCIATION, MILWAUKEE (1855)

History

In 1855 there was founded and incorporated at Milwaukee the "Wisconsin Natural History Association." The date of incorporation is given as Feb. 21, 1855.

"Leonard J. Farwell, William Dudley, Samuel Sercomb, Increase A. Lapham, Philo R. Hoy, Constantine A. Barry, James G. Percival, Edward Daniels, and such other persons as may from time to time become members, shall be and are hereby constituted a body politic and corporate, by the name of the Wisconsin Natural History Association, at Milwaukee. . . ."

"The object of the Association shall be to promote the progress of the natural sciences especially by investigating the geology, bot-

any and zoology of Wisconsin, the establishment of a museum and library, the reading of original papers, and by other suitable means. . . ." From the CONSTITUTION.

In 1860, the president was Increase A. Lapham, the vice-president, N. A. Staples, the recording secretary, George S. Allan, the corresponding secretary, E. P. Larkin, the treasurer, Charles Caverno, the directors, J. E. Garner and Andrew Kerr. The Society appears to have had a short-lived existence, as little more has been written concerning it. This group represented the English-speaking supporters of the natural sciences.

At the instigation of Peter Engelmann (1823–1874), supervisor of the German and English Academy in Milwaukee, there was organized on May 6, 1857, "Der Naturhistorische Verein von Wisconsin." The members of this group were nearly all German-speaking devotees of the natural sciences. The officers of the Verein at the time of the publication of its first annual report in 1866 were as follows: F. A. Leuning, president; Ed. Vintschger, vice-president; Peter Engelmann, corresponding secretary; W. Lorenz, recording secretary; G. Preusser, librarian; Fr. A. Pfaff, director of zoology, etc.

This organization was fairly active for many years and in 1879 was incorporated as the Natural History Society of Wisconsin. This Society was instrumental in the formation of the present Milwaukee Public Museum.

Bibliography

1860 WISCONSIN NATURAL HISTORY ASSOCIATION. Charter, constitution, by-laws and list of officers. Milwaukee, Wis., Starr's calorie power presses, 1860. 6 p.

Copy examined at the Library of Congress.

1866 DER NATURHISTORISCHER VEREIN VON WISCONSIN. First annual report . . . Milwaukee, Wis., 1866. 12 p.

In German. Contains historical note, constitution, by-laws, list of members and list of specimens in the museum. Copy examined at the Library of Congress.

1881 History of Milwaukee. Chicago, Western Hist. Co., 1881. p. 552.

1920 DOERFLINGER, C. H. The genesis and early history of the Wisconsin Natural History Society at Milwaukee.

Ed at the 50th anniversary of the Society in the Milwaukee Public Museum. Also published as a separate. 15 p.

ACADEMY OF SCIENCE OF ST. LOUIS (1856)

History

" . . . The time finally ripened and after several preliminary meetings, of which no record was preserved, the organizers of the Academy of Science of St. Louis met in the Hall of the Board of Public Schools, March 10, 1856. The fifteen persons responding to roll call on that occasion were physicians, George Engelmann, Moses L. Linton, Wm. M. McPheeters, Moses M. Pallen, Simon Pollak, Charles A. Pope, Hiram A. Prout, Benjamin F. Shumard, Charles W. Stevens, Wm. A. Tingley, John H. Walters, Adolphus Wislizenus; civil engineer, James B. Eads, lawyer, Nathaniel Holmes, and fur trader and traveller, Charles P. Chouteau. . . . The following officers were elected to serve the first year: George Engelmann, president; H. A. Prout and Nathaniel Holmes, first and second vice-presidents; B. F. Shumard and Wm. A. Tingley, secretaries; J. B. Eads, treasurer; M. M. Pallen, Adolphus Wislizenus, B. F. Shumard and C. W. Stevens, curators. . . ."

"On the 17th of January following, a charter incorporating the Academy was signed and approved, and this was accepted by a vote of the Academy on the 9th of February, 1857. The Act of Incorporation declares the object of the Academy to be 'the promotion of science.' Its scientific activities at that early date were distributed among the following fourteen standing committees: anatomy, comparative; botany, chemistry, embryology, entomology, ethnology, geology, mammology, mineralogy, ornithology, monstrosities, palaeontology, and physics. . . ."

"The members began their discussions with objects of magnitude, for the Zeuglodon, a gigantic fossil whale, and the Missourium (Mastodon giganteus) were the subjects of the first debates along the line of science. The Academy authorized the spending of its first money to pay the expenses of a trip south by Albert C. Koch, who made the journey to study the then much talked about Zeuglodon fossil remains of Mississippi. . . .

" . . . The name of the St. Louis Academy was placed on the exchange list of the Philadelphia Academy before the Society had any publications to exchange. . . .

"The organization meeting closed with fifteen charter members; in 1860, just before the Civil War, the total had grown to 150. . . ." Extracts from WHELPLEY, H. M. p. 22. 1906 (see Bibliography, below, 1906).

"At the second meeting of the Academy, April 21, 1856, Col. John O'Fallon, through Dr. C. A. Pope, offered to the Academy the free use of the Cabinet Hall and other rooms suitable for the purposes of the Academy in the Dispensary building of the St. Louis Medical College (also known as Pope's College). . . . In this building were established the first museum and library of the Academy. . . ." HAMBACH, G. 1906. (See Bibliography: 1906, below.)

Large collections were presented during the period 1856–65 by F. V. Hayden, who was then working in the Bad Lands of Nebraska; Charles P. Chouteau, T. C. Hilgard, Charles Pope, C. W. Stevens, and Adolph Wislizenus. The books, 120 volumes of the extinct WESTERN ACADEMY OF NATURAL SCIENCES OF ST. LOUIS (1836), q. v., were turned over to the Academy Aug. 4, 1856.

The Academy issued two volumes of Transactions during the decade 1856–1866, the first number of volume 1, having been published in 1857. See below TRANSACTIONS: Dates of Publication, for the first two volumes.

For the various aspects of the Academy's history, see below, the BIBLIOGRAPHY.

In addition to the names noted above, and to those contained below in the PAPERS ON NATURAL HISTORY, active members of the Academy, who served as curators or in other offices, but very rarely as contributors to its Transactions, were: John Lebrecht, J. S. B. Alleyne, Edward Wyman, John Moss, E. H. Gregory, G. H. E. Baumgarten, Samuel Reber, M. L. Clark, Bretton A. Hill, G. C. Broadhead, Enno Sander (treasurer for many years); Nathaniel Holmes (secretary 1857–65).

Presidents

1856	George Engelmann
1857–58	B. F. Shumard
1859	Adolphus Wislizenus
1860	H. A. Prout
1861–65	George Engelmann

Bibliography

1857 ACADEMY OF SCIENCE OF ST. LOUIS. . . .Transactions of the . . . 1856– date. St. Louis, 1857 (1860)– date. v. 1– date. illus. pl. port.

For dates of Publication of v. 1–2, see below: TRANSACTIONS: Dates of Publication.

————. Charter: Act of Incorporation; Constitution and by-laws. St. Louis, 1857. (In its Trans. v. 1, p. 5–14)

First printed as a separate: St. Louis, Democrat Printing Co., 1856. 15 p. Repr. 1857. 16 p.

1890 ————. Constitution, members, officers, history, index to volumes . . . St. Louis, 1890. 62 p.

Repr. 1893. 91 p.

1898 STARR, Frederick. The Academy of Natural Science of St. Louis. (In Pop. Sc. Mthly. v. 52, p. 629–47. March, 1898)

Interesting account of the beginnings of the Academy; with brief biographical sketches of its founders.

1903 TRELEASE, William. The Academy of Science of St. Louis: a biography. (In Pop. Sc. Mthly. v. 64, p. 117–30. Dec. 1903)

1906 ACADEMY OF SCIENCE OF ST. LOUIS. Celebration of the fiftieth anniversary of the first meeting, March 10, 1906. St. Louis, July 23, 1906. (In its Trans. v. 16, pref. p. 15–99)

CONTENTS:

pref. p. 20–30 WHELPLEY, H. M. A sketch of the history of the Academy.

pref. p. 33– 9 HAMBACH, G[ustavus]. A history of the museum and library.

1908 SPAULDING, Perley. A biographical history of botany at St. Louis, Missouri. (In Pop. Sc. Mthly. v. 73, p. 488–99, Dec. 1908; & v. 74, p. 48–57, 124–33, 240–58, port. 1909)

1914 KLEM, Mary J. The history of science in St. Louis. St. Louis, Dec. 29, 1914. (In Acad. Sc. St. Louis. Trans. v. 23, no. 2, p. 79–127)

1921 ACADEMY OF SCIENCE OF ST. LOUIS. Table of contents and price list, v. 1–23 of Transactions. (In its Trans. v. 24, no. 1, p. 1–16. Aug. 1921)

Transactions (*T*)

Dates of Publication

v. 1, for 1856–60, pub. 1857–60. 726 p. 21 pl.
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no. 2, pub. 1858. p. 93–304, 4 pl.
no. 3, pub. 1859. p. 305–526, 9 pl.
no. 4. pub. 1860. p. 527–726, 3 pl.
v. 2, for 1861–68, pub. 1862–68. 602 p.
p. 1–114 pub. May 1, 1862

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p. 459–554	Apr. 1868
p. 555–602	May, 1868

Papers on Natural History

1856 KOCH, A. C. Result of late explorations in Mississippi and Arkansas. T. v. 1, p. 17–9. Rd June 2.

EVANS, John, and SHUMARD, B. F. On some new species of fossils from the Cretaceous formation of Nebraska territory. T. v. 1, art. 1, p. 38–42, + [1 p.] 1 pl. [16 fig.] Rd Sept. 8.

PROUT, H. A. Descriptions of a new species of Productus, from the Carboniferous limestone of St. Louis (P. marginicinctus, nob.). T. v. 1, art. 2, p. 43–5, 1 pl. Rd Dec. 15.

HILGARD, T. C. Phyllotaxis: its numeric and divergential law explicable under a simple organological idea. T. v. 1, art. 4, p. 48–61, 1 pl. Rd Dec. 29.

1857 KOCH, A. C. Mastodon remains in the state of Missouri, together with evidences of the existence of man contemporaneous with the Mastodon. T. v. 1, art. 5, p. 61–4. Rd Jan. 26.

SWALLOW, G. C. . . . On several ancient Indian mounds discovered and opened . . . in the county of New Madrid, Missouri . . . T. v. 1, p. 36–7. Rd Feb. 9.

SHUMARD, B. F. Description of new fossil Crinoidea from the Paleozoic rocks of the western and southern portions of the United States. T. v. 1, art. 8, p. 71–80, 1 pl. [6 fig.] Rd Feb. 9.

LITTON, A. Belcher and Brother's artesian well. T. v. 1, art. 9, p. 80–6. 1 pl. Rd Feb. 9.

SHUMARD, B. F. Descriptions of new species of Blastoidea from the Paleozoic rocks of the western states with some observations on the structure of the summit of the genus Pentremites. T. v. 1, p. 238–48, 1 pl. Rd Sept. 21.

HILGARD, T. C. Exposition of a natural series of immediate catholic affinities in the vegetable kingdom. T. v. 1, p. 103–4, 125–56, plan. Rd Oct. 19.

SHUMARD, G. G. Observations on the geological formations of the country between the Rio Pecos and the Rio Grande in New Mexico near the line of the 32d parallel; being an abstract of a portion of the Geological Report of the Expedition under Pope . . . in 1855. T. v. 1, p. 273–89. Rd Nov. 16.

See also POPE'S EXPED. (1855)

SHUMARD, B. F. Descriptions of new fossils from the Tertiary formations of Oregon and Washington territories, and the Cretaceous of Vancouver's Island, collected by Dr John Evans . . . T. v. 1, p. 120–25. Rd Dec. 28.

See also OREGON & WASHINGTON SURVEYS (1851)

1858 SWALLOW, G. C. Letter on the Permian rocks of Kansas. T. v. 1, p. 111–12. Rd Feb. 22.

See also note, p. 113–14, by B. F. SHUMARD.

SWALLOW, G. C., and HAWN, F[rederick]. The rocks of Kansas. T. v. 1, p. 173–97. Rd Feb. 22.

See also MERRILL, (1), p. 485–87. See also MERRILL, First 100 yrs. Amer. Geol. 1924. p. 368–70.

WISLIZENUS, A[dolph]. Was man contemporaneous with the Mastodon? T. v. 1, p. 168–71. Rd Mar. 8.

See also Remarks by Koch and Nathaniel Holmes, p. 116–18.

SHUMARD, B. F., and SWALLOW, G. C. Descriptions of new fossils from the coal measures of Missouri and Kansas. T. v. 1, p. 198–227. Rd Mar. 8.

PROUT, H. A. Descriptions of new species of Bryozoa from Texas and New Mexico . . . collected by Dr. G. G. Shumard, geologist of the U. S. Expedition for the boring of artesian wells . . . under Capt. Pope. T. v. 1, p. 228–35. Rd Mar. 22.

See also POPE'S EXPED. (1855)

————. First of a series of descriptions of Carboniferous Bryozoa. T. v. 1, p. 235–37. Rd Mar. 22.

Pt. 2, rd May 3, 1858 (see below)

SHUMARD, B. F. Notice of new fossils from the Permian strata of New Mexico and Texas collected by G. G. Shumard, geologist of the U. S. Expedition for obtaining water by means of artesian wells . . . under Capt. Pope . . . T. v. 1, p. 290–97, 387–403, 1 pl. [10 fig.] Rd Mar. 22 & May 9.

See also POPE'S EXPED. (1855)

NORWOOD, J. G. . . . A letter on some of the rocks of Illinois, which overlie the main coal measures in several counties of this state. T. v. 1, p. 115–16. Rd Apr. 5.

HAWN, F[rederick]. The Trias of Kansas. T. v. 1, p. 171–72. Rd Apr. 12.

SWALLOW, G. C. Grape culture in Missouri. T. v. 1, p. 156–68. Rd Apr. 12.

PROUT, H. A. Second series of descriptions of Bryozoa from the Paleozoic rocks of the western states and territories. T. v. 1, p. 266–73. Rd May 3.

First series rd Mar. 22 (above); third, rd May 2, 1859 (q.v.)

HILGARD, T. C. On the cotton-wood tree . . . T. v. 1, p. 312–14. Rd July 26.

SHUMARD, G. G. The geological structure of the "Jornada del Muerto," New Mexico, being an abstract from the Geological report of the Expedition under . . . Capt. Pope. T. v. 1, p. 341–55. Rd July 26.

See also POPE'S EXPED. (1855)

1859 HILGARD, T. C. On a number of skulls . . . T. v. 1, p. 335–37. Rd Apr. 15.

PROUT, H. A. Third series of descriptions of Bryozoa from the Palaeozoic rocks of the western states and territories. T. v. 1, p. 443–52, 4 pl. [16 fig.] Rd May 2.

Second ser., rd., May 3, 1858 (above); 4th rd., Mar. 5, 1860, (below, q.v.)

HILGARD, T. C. Notes on comparative organotaxis. T. v. 1, p. 416–30. Rd May 9.

ENGELMANN, George. Two new Dioecious grasses of the United States. T. v. 1, p. 431–42, 3 pl. [49 fig.] Rd May 9.

Also in Repr. of E's Papers. 1887. p. 496–505. Buchloe Dactyloides and Monanthochloe littoralis.

————. Systematic arrangement of the species of the genus Cuscuta, with critical remarks on old species and descriptions of new ones. T. v. 1, p. 453–523. Rd May 9.

Abstr., p. 339. Index, p. 521–23. Also in Repr. of E's Papers. 1887. p. 71–104.

SHUMARD, B. F. Observations on the geology of the county of St. Genevieve, being an extract from a Report made to the Missouri Geological Survey in 1859. T. v. 1, p. 404–15, 1 pl. Rd June 6.

See also MISSOURI GEOL. SURV. (1853)

MARCOU, Jules. Notes on the geology of Kansas and Nebraska. T. v. 1, p. 610–11. Rd June 20.

ENGELMANN, George. . . . On several species of Verbena, from this neighborhood, and of the hybrids between them. T. v. 1, p. 675–76. Rd Sept. 5.

HILGARD, T. C. Exhibition of spines, fins and bones of fishes, illustrating by comparative anatomy of this and other classes of Vertebrata, in reference to organotactic laws and the phyllotactic numbers 3 and 5. T. v. 1, p. 678–82. Rd Oct. 17.

1860 WORTHEN, A. H. Notice of a new species of Platycrinus and other fossils, from the limestone of Illinois and Iowa; being an extract from the Second annual report of the Illinois Geological Survey. T. v. 1, p. 569–71. Rd Jan. 2.

See also ILLINOIS GEOL. SURV. (1851)

————. Review of some points in Dr B. F. Shumard's "Report on the geology of St. Genevieve County, Missouri." T. v. 1, p. 696–97. Rd Jan. 2.

Shumard's paper rd., June 6, 1859 (above, q.v.)

STEVENS, C. W. On a monstrosity in the development of head and neck of a new-born lamb. T. v. 1, p. 697–98. Rd Feb. 20.

PROUT, H. A. Fourth series of descriptions of Bryozoa from the Palaeozoic rocks of the western states and territories. T. v. 1, p. 571–81. Rd Mar. 5.

Third series rd., May 2, 1859 (above, q.v.)

————. Fossil tooth found at King's Salt Works, Abingdon, Va. T. v. 1, p. 699–700. Rd Apr. 2.

SHUMARD, B. F. Descriptions of new Cretaceous fossils from Texas. T. v. 1, p. 590–610. Rd May 7.

See also TEXAS GEOL. SURV. (1858)

————. Notice of meteoric iron from Texas . . . T. v. 1, p. 622–24. Rd May 7.

————. Observations on the Cretaceous strata of Texas. T. v. 1, p. 582–90. Rd May 21.

See also TEXAS GEOL. SURV. (1858)

LYON, S. S. Remarks on the stratigraphical arrangement of the rocks of Kentucky, from the Catenipora escharoides horizon of the Upper Silurian period, in Jefferson County, to the base of the productive coal measures in the eastern edge of Hancock County. T. v. 1, p. 612–21. Rd May 21.

See also KENTUCKY GEOL. SURV. (1854)

1860 ————. Description of four new species of Blastoidea from the Subcarboniferous rocks of Kentucky. T. v. 1, p. 628–34, 1 pl. [4 fig.] Rd May 21.

See also KENTUCKY GEOL. SURV. (1854)

SHUMARD, B. F. Descriptions of five new species of Gasteropoda from the coal measures, and a Brachiopod from the Potsdam sandstone of Texas. T. v. 1, p. 624–27. Rd June 18.

See also TEXAS GEOL. SURV. (1858)

SWALLOW, G. C. Descriptions of new fossils from the Carboniferous and Devonian rocks of Missouri. T. v. 1, p. 635–60. Rd July 2.

Second part rd., Oct. 15, 1860 (below, q.v.)

See also MISSOURI GEOL. SURV. (1853)

ENGELMANN, George. Notes on the grape-vines of Missouri. T. v. 1, p. 660–62. Rd July 2.

HOLMES, Nathaniel. On the mass of meteoric iron from Nebraska Territory. T. v. 1, p. 711–12. Rd Aug. 20.

SWALLOW, G. C. Descriptions of some new fossils from the Carboniferous and Devonian rocks of Missouri. T. v. 2, p. 81–100. Rd Oct. 15.

First part rd., July 2, 1860 (above, q.v.)

See also MISSOURI GEOL. SURV. (1853)

ENGELMANN, George. . . . Remarks on Nelumbium luteum. T. v. 2, p. 136–39, illus. Rd Oct. 15.

Also in Repr. of E's Papers. 1887. p. 469–72.

————. Elevation of St. Louis above the Gulf of Mexico. T. v. 1. p. 663–67. Rd Nov. 5.

SHUMARD, B. F. . . . Letter . . . concerning the discovery in Texas of dicotyledonous leaves in Cretaceous strata, and the existence of an extensive Miocene formation. T. v. 2, p. 140–41. Rd Nov. 5.

1861 ENGELMANN, George. On the dimorphism of Draba brachycarpa . . . T. v. 2, p. 154–55. Rd Apr. 15.

SHUMARD, B. F. Vertical section of Silurian strata of Cape Girardeau County. T. v. 2, p. 156. Rd Apr. 15.

See also MISSOURI GEOL. SURV. (1853)

WISLIZENUS, Adolph. Remarks on the so-called army-worm. T. v. 2, p. 159–60. Rd July 1.

ENGELMANN, George. On two species of fungi . . . T. v. 2, p. 165–66. Rd Sept. 16.

Botrytis & Naemaspora.

————. On the nature of the pulp of the Cactus fruit. T. v. 2, p. 166–67. Rd Oct. 7.

Also in Repr. of E's Papers. 1887. p. 235–36.

1862 ————. Additions to the cactus flora of the territory of the United States. T. v. 2, p. 197–204. Rd Mar. 17.

See also his paper rd before Amer. Acad. A. & Sc. (1780), May 27, 1856. Also in Repr. of E's Papers. 1887. p. 222–26.

See also SIMPSON'S UTAH EXPED. (1858)

————. On Pinus aristata, a new species of pine discovered by Dr C. C. Parry in the alpine regions of Colorado Territory, and on some other pines of the Rocky Mountains. T. v. 2, p. 205–14, 2 pl. Rd Mar. 17.

Also in Repr. of E's Papers. 1887. p. 326–32.

————. New species of Gentiana, from the alpine regions of the Rocky Mountains. T. v. 2, p. 214–18, 5 pl. Rd Mar. 17.

Also in Repr. of E's Papers. 1887. p. 478–83.

ENGELMANN, Henry. Topaz in Utah. T. v. 2, p. 114. Rd Apr. 21.

See also SIMPSON'S UTAH EXPED. (1858)

BROADHEAD, G. C. Coal measures in Missouri. T. v. 2, p. 311–33. Rd May 5.

SHUMARD, B. F. Descriptions of new Palaeozoic fossils. T. v. 2, p. 108–13. Rd in May.

See also TEXAS GEOL. SURV. (1858)

————. Notice of some new and imperfectly known fossils from the Primordial zone (Potsdam sandstone and calciferous sand group) of Wisconsin and Missouri. T. v. 2, p. 101–7. Rd in May.

PARRY, C. C. Ascent of Pike's Peak, July 1, 1862 . . . from a letter addressed to Prof. Torrey . . . T. v. 2, p. 120–26. Rd Sept. 20.

Description of plants observed on the journey.

ENGELMANN, Henry. On the lower Carboniferous system as developed in southern Illinois, being the results of some explorations made by him in the summer of 1862. T. v. 2, p. 188–90. Rd Nov. 3.

See also ILLINOIS GEOL. SURV. (1851)

1864 OWEN, Richard. Account of late visit to the newly-discovered deposit of rock-salt near New Iberia, on the Gulf Coast, Louisiana. T. v. 2, p. 250–52. Rd Sept. 5.

PROUT, H. A. Descriptions of new species of Bryozoa. T. v. 2, p. 410–13. Rd Oct. 3.

Posthumous paper.

1865 SHIMER, Henry. On a specimen of Icterus. T. v. 2, p. 260–61. Rd Jan. 16.

SHUMARD, B. F. A catalogue of the Palaeozoic fossils of North America. T. v. 2, p. 334–407. Rd Feb. 6.

Pt. 1, Palaeozoic Echinodermata. Bibliography, (chronological), p. 335–41.

————. A visit to the oil springs in Ray and Carroll Counties, Mo. T. v. 2, p. 263–64. Rd Mar 6.

PARRY, C. C. Notice of some additional observations on the physiography of the Rocky Mountains, made during the summer of 1864. T. v. 2, p. 272–86. Rd Apr. 3.

Appx., p. 282–86, by George ENGELMANN.

ENGELMANN, George. On the fruit and seed of different species of Viburnum. T. v. 2, p. 269–71. Rd May 15.

SWALLOW, G. C. Some new varieties of Spirifer lineatus, Martin; S. cameratus; Morton; S. Kentuckiensis, Shumard; S. Leidyi, Norwood & Pratten; S. increbescens, Hall; and S. Keokuk, Hall. T. v. 2, p. 408–10.

BRYAN'S EXPEDITION FROM FORT RILEY TO BRIDGER'S PASS (1856)

History

Lt. F. T. Bryan under orders from the Secretary of War conducted a military expedition from Fort Riley, Kansas, to Bridger's Pass, Utah, between June 21 and October 18, 1856.

He was accompanied by Henry Engelmann in the capacity of geologist and by John Lambert, topographer. His Final Report was rendered Feb. 19, 1857, and published the same year, as an appendix to the Annual Report of the Secretary of War for 1857. The collections made by the expedition were sent to the Smithsonian Institution, and partially described in v. 8, 9 & 10 of the Final Reports of the PACIFIC RAILROAD SURVEYS (1853), q. v.

B. F. Shumard described the palaeontology of the expedition.

Bibliography

1859 BAIRD, S. F. . . . Birds found at Fort Bridger, Utah, by D. Deshler. Wash. 1859. (In PACIFIC RR. SURV. v. 9, p. 926–27) In Serials no. 766 or 799.

Report

1857 BRYAN, Francis T[heodore]. . . . Report concerning the operations of the party under my command on the road from Fort Riley to Bridger's Pass. Washington, 1857. (In U. S. 35th Cong., 1st sess., H. Ex. Doc. v. 2, pt. 2, no. 2, p. 455–520) Serial no. 943.
Forms part of Appx. H. of Report Sec. War for 1857.

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p. 481– 88 LAMBERT, John. Report on the topography of the country between Lodge Pole Creek, Cache la Poudre, and the South Platte . . . Written Mar. 21, 1857.
p. 489–517 ENGELMANN, Henry. Report of a geological exploration from Fort Leavenworth to Bryan's Pass, made in connection with the survey for a road from Fort Riley to Bridger's Pass under F. T. Bryan.
p. 517– 20 SHUMARD, B. F. Paleontology.
Written Jan. 14, 1856.

CHICAGO ACADEMY OF SCIENCES (1856)

History

"The Chicago Academy of Sciences is believed to have the honor of being organized at an earlier date than any other scholarly body now existing in Chicago. In the year 1856 a small circle of enthusiastic gentlemen united in a Society for the promotion of scientific investigation, and adopted the name, 'The Chicago Academy of Natural Sciences.'" These, the original members of the Academy were, James V. Z. Blaney, Nathan S. Davis, Sr., James W. Freer, C. A. Helmuth, Hosmer A. Johnson, Edmund Andrews, Henry Parker, J. Young Scammon, Franklin Scammon, Richard K. Swift, Joseph D. Webster, Eliphalet W. Blatchford and Henry W. Zimmermann. To this list many new names were added, and the new Society grew and developed rapidly.

A definite organization was completed at a meeting held January 13, 1857, in the office of Dr. Edmund Andrews, and the following officers were elected: James V. Z. Blaney, president; N. S. Davis,

Sr., and J. D. Webster, vice-presidents; H. A. Johnson, secretary; Henry Parker, recording secretary; R. K. Swift, treasurer; and Edmund Andrews, curator and librarian.

The need of funds soon became apparent and subscriptions to the extent of $1,500 were readily obtained. A room was rented in a building located at the southeast corner of Clark and Lake Streets, a few cases were procured, and the foundation of a museum was laid. This favorable beginning, however, was of short duration, for the financial crisis of 1857 and 1858 left but few of the subscriptions in a condition for collection. The Society was unable to pay the salary of the curator or to increase its museum accommodations. The publication of transactions had been planned, but this, the most ambitious wish of the members, was necessarily postponed. However, a few of the members worked on the cabinet in their leisure and interesting monthly meetings were sustained.

In 1859, under the provisions of a general law, the Society was incorporated under the name, "The Chicago Academy of Sciences" . . .

Renewed activity and interest was the result of this reorganization. Much of the stimulus of this activity, as in the earlier period of the Society, was furnished by Mr. Robert Kennicott, a young naturalist of great promise. He, with Dr. Edmund Andrews, had placed in the museum the larger number of the many thousand specimens already on exhibition. About this time Mr. Kennicott joined a scientific expedition to northwestern Arctic America. In the year 1862 after an absence of three years, he returned, bringing an abundant supply of material in all the departments of natural history and ethnology.

The expenses of this expedition, defrayed by the Smithsonian Institution, and by several residents of Chicago, were materially lessened by the unprecedented liberality of the officers of the Hudson Bay Co., acting both as officials and as individuals. The expedition was undertaken with the understanding that the Smithsonian Institution should be the first beneficiary, but that any other institution that Mr. Kennicott should designate, and which would suitably provide for their reception and care, should also have a full series of the specimens. Mr. Kennicott naturally desired that this series should have a home in Chicago, and designated the Academy as the second beneficiary.

In the winter of the years 1863 and 1864 the affairs of the museum began to assume a more definite form. The value of the collections already offered, and the readiness of the Smithsonian Institution to fulfill its agreement as to duplicates and to add much other material from its abundant stores, induced several prominent citizens of Chicago to undertake the founding of a permanent and more extensive museum of natural and applied sciences in the youthful metropolis of the central west.

Professor Louis Agassiz of Harvard University, accepted an invitation to address a meeting of those interested. This meeting was held February 22, 1864, at the residence of Mr. Edmund Aiken. Both the lecturer and the occasion aroused great enthusiasm. A subscription paper was started, to which the names of about 125 persons were soon appended, each agreeing to give the sum of $500. The leading spirits in this movement were J. Y. Scammon, G. C. Walker, E. B. McCagg, E. W. Blatchford, Daniel Thompson [and Robert Kennicott] . . .

In March of the year 1865 the Western Union Telegraph Co. planned an expedition to survey along the northwest coast of North America for the purpose of establishing a route for a telegraph line intended to connect this continent with Asia by crossing the Behring Straits. The company very generously offered to nauralists the opportunity to conduct scientific investigations in a country at that time scarcely known, and nearly inaccessible. Mr. Kennicott, who had been elected the Curator of the Academy early in the previous year, with other young naturalists as his associates, eagerly availed themselves of the unusual facilities thus granted. The outfit for scientific investigation and collecting, costing about one thousand dollars, was furnished by the Academy.

"On March 21, 1865, Mr. Kennicott sailed from New York on the steamer 'Golden Rule' . . . The party arrived at San Francisco on April 25. While there, Mr. Kennicott was notified of his election to the office of the 'Director of the Academy' . . ." Extracts from HIGLEY, W. K. p. 5–13. (See Bibliography: 1902, below.)

The first volume of the Academy's "Transactions" was published between 1867 and 1869. A disastrous fire which destroyed the bulk of the collections, books, etc., in 1866, caused delay in the publication of the Transactions, and of many papers which William Stimpson, the Secretary of the Academy, had ready for the press.

The Presidents of the Academy were: 1856–61, J. V. Z. Blaney; 1862–64, J. Y. Scammon; 1865, Edmund Andrews.

The Secretaries of the Academy were: 1857–64, Robert Kennicott; 1865–75, William Stimpson.

The Curators were: 1856–63, Edmund Andrews; 1862–63, J. M. Woodworth; 1864, Robert Kennicott; 1865–72, William Stimpson.

Bibliography

1865 CHICAGO ACADEMY OF SCIENCES. Act of incorporation; Constitution, by-laws, and lists of officers and members of the . . . with a historical sketch of the Association and reports on the Museum and Library. Chicago, 1865. 63 p.

p. 13– 6, Historical sketch, by Edmund ANDREWS.
p. 25–44, Report on the present condition of the Museum.
p. 45–63, Report on Library.

1867 ————. Transactions . . . Chicago, 1867–69. 1 v. (9 + 337 + 8 p.) 34 pl. map. 4°.

1880 McCAGG, E. B. The Chicago Academy of Sciences: a historical sketch. Chicago, 1880. (In BLANCHARD, Rufus. Discovery & conquests of the north-west with History of Chicago. p. 583–87)

1902 HIGLEY, William Kerr. . . . The Chicago Academy of Sciences: historical sketch of the Academy. Chicago, 1902. 52 p. illus. pl. port. (Special pub. no. 1)

Transactions (T)

v. 1, pub. 1867–69

Papers on Natural History

1859 McCHESNEY, J. H. Descriptions of fossils from the Palaeozoic rocks of the western states, with illustrations. T. v. 1, art. 1, p. 1–57, 9 pl. [81 fig.] Rd Oct. 11.

Repub. from his "Descriptions of new species of fossils from the Palaeozoic rocks of the western states." 1860–61.

According to B. F. Shumard, p. 1–56, Jan. 3, 1860; p. 57–76, May 24, 1860; p. 77–96, Feb. 1861.

Rev. in Amer. J. Sc. v. 82 (ser. 2, v. 32), p. 122–23. July, 1861.

1865 LAPHAM, I. A. On the climate bordering upon the Great North American lakes. T. v. 1, art. 2, p. 58–60, map.

MEEK, F. B. Remarks on the geology of the valley of the Mackenzie River, with figures and descriptions of fossils from that region, in the museum of the Smithsonian Institution, chiefly collected by the late Robert Kennicott, Esq. T. v. 1, art. 3, p. 61–114, 5 pl. [41 fig.]

STIMPSON, William. Illustrations of North American birds in the Museum of the Chicago Academy of Sciences. T. v. 1, art. 5, p. 128–29, 4 pl.

————. Robert Kennicott. T. v. 1, p. 133–226.

Contains copious and extended extracts from Kennicott's Journals of Travels in the Hudson Bay Country.

THE CINCINNATUS (1856)

History

The CINCINNATUS, an agricultural journal edited by the faculty of Farmers' College, made its first appearance in January, 1856. Although primarily agricultural in scope, the six volumes of this periodical usually contained a popular article on natural history in each number. See below the PAPERS ON NATURAL HISTORY to be found in these volumes. It also served as the publication organ for the Cincinnati Horticultural Society.

The College was located at College Hill, Ohio, and the faculty of the institution maintained a botanic garden, for the account of which see below, PAPERS ON NATURAL HISTORY: v. 1, p. 598–600. Dec. 1856.

Bibliography

1856 (THE) CINCINNATUS; edited by the faculty of Farmers' College. Cincinnati, Applegate & Co., 1856–61. v. 1–5, n. s. v. 1. illus.

v. 2–5, n. s. v. 1, (THE) CINCINNATUS: devoted to scientific agriculture and horticulture, rural education, and to the improvement of rural taste.

Copies examined in the Library of the N. Y. Botanical Garden.

Papers on Natural History

1856 **v. 1, no. 1, 2, 5 Jan., Feb. & May**

ANON. Observations on the flora of the western states. p. 13–7, 81–4, 209–14.

v. 1, no. 6, June

KERN, G. M. Vegetable reproduction—sexual characteristics of plants. p. 257–66.

VAUGHAN, D. D. The absence of trees from prairies. p. 268–74.

v. 1, no. 7, July

ANON. The Cryptogamia: a class essay. p. 314–17.

v. 1, no. 8, August

GLOVER, Townend. Agricultural entomology. p. 392–96.

Address before National Agricultural Society.

v. 1, no. 9, September

ANON. What is the use of botany? p. 413–15.

v. 1, no. 12, December

————. Our botanic garden at College Hill, Ohio; ed. by the Faculty of Farmers' College. p. 598–600.

1857 **v. 2, no. 2, February**

CARY, F. G. The seed. p. 49–52.

CHRISTY, David. Geological and mineralogical character of western North Carolina. p. 52–7.

From his Report on the mining lands of the Nanthala & Tuckasege Copper Association.

v. 2, no. 5, May

WOOD, Alphonso. Botanical excursion from Savannah, Georgia; Hillsboro, N. C. p. 206–12, 224–25.

ANON. Honey-bee. p. 212–16.

v. 2, no. 6, June

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v. 3, no. 12, December

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STAUFFER, Jacob. Entomology—the natural history of insects. p. 30–5, 105–9, 164–67, 310–13, 488–91, illus.

v. 4, no. 2, February

CHRISTY, David. Niagara Falls—its relations to chronology. p. 49–63, illus.

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ELLINGWOOD, J. P. An ethnological inquiry concerning the aboriginal races in America. p. 114–16.

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COOPER, J. G. On the cultivation of trees by the North American Indians in former times. p. 385–89.

WARREN'S EXPLORATIONS IN NEBRASKA & DACOTAH (1856)

History

"The principal objects of the expedition were to ascertain the best route by which to continue to the South Pass the military road

now constructing from the Mississippi River to Sioux City, on the Missouri, and to examine in this connection the Valley of the Loup Fork of the Platte, and that of the Niobrara, and to make such reconnaissance of the Black Hills, about the sources of the Big Cheyenne, as circumstances would permit, to determine their character, especially with reference to the future military operations that may be carried on in this territory. In accomplishing these objects, the Expedition would obtain information of the character and resources of the country, its adaptability to settlement and cultivation, and would develop its geography and geology along the routes pursued . . ."

"The routes reconnoitred and mapped in 1857 are from Sioux City to the mouth of Loup Fork, thence up this stream to its source in the Sand Hills, and thence by the Niobrara to Fort Laramie. From this point the party proceeded north, and carefully examined the Black Hills, and returning to the Niobrara, explored this stream to its junction with the Missouri, and also a route from the mouth of Turtle Hill River to Fort Randall. Finally the road from Fort Randall to Sioux City was surveyed."

"With the report on these routes, Lt. Warren combines that of the routes examined by him in 1856, under orders from General Harney, of which examinations no report has heretofore been presented."

"In that year he made a careful reconnaissance of the Missouri River from the southern boundary of Nebraska to a point sixty miles above the mouth of the Yellowstone, and of this latter stream to Powder River."

"The routes explored including those of 1858 (of which a report has been rendered and printed), all lie east of the 106th meridian. They lead once through the Sand Hills north and south and twice east and west, almost around the Black Hills, and through the valleys of the following rivers, viz., the Platte, Loup Fork, Niobrara, White Earth, Big Cheyenne, Missouri, Yellowstone, and Jones Rivers . . ." A. A. HUMPHREYS. Ann. Rept. of Topogr. Eng. to Secr. War, Nov. 20, 1858, p. 5–6 (of WARREN'S Report. Reprint. 1875—see Reports, below).

" . . . I started from St. Louis for Fort Pierre, in the middle of April (16), 1856, accompanied by my assistants, Messrs. A. H. Hutton, J. H. Snowden, and F. V. Hayden on board Capt. Throckmorton's steamboat, Genoa . . . At Fort Pierre, I received orders

from Gen. Harney to proceed on board the American Fur Company's boat, St. Mary, and examine the Missouri River, as far as she should go, and then to return down stream by Mackinac boats . . . While waiting for the Fur Company at Fort Union, to build a Mackinac boat . . . the whole party explored the left bank of the Yellowstone to the mouth of Powder River . . . We arrived at Fort Pierre October 2, where the expedition terminated . . ." WARREN, p. 90. (Pacific RR. Surv. v. 11, 1859).

Warren states that Dr. F. V. Hayden "was indefatigable in his efforts to develop the geology of the region traversed . . . A very extensive collection was also made in zoology . . ." The cost of the Expedition was about $10,000. Warren submitted a Report Nov. 24, 1858, of which both a Senate and a House edition were published.

In 1875, a Reprint of Warren's was published under the direction of the U. S. Army Engineers. See below REPORTS. See also MERRILL, (1), p. 586–87, for critical review of the geological contents of Warren's Reports. See also MERRILL. First 100 yrs Amer. Geol. 1924. p. 503–4, 711–14.

A large number of papers describing the collections made, the bulk of which were deposited with the Smithsonian Institution (1846), q. v., were presented to various societies, and published in their proceedings or transactions. See below PAPERS IN SOCIETY TRANSACTIONS.

These were made chiefly by Hayden, F. B. Meek, Joseph Leidy, J. S. Newberry, W. G. Binney, S. F. Baird, Chester Dewey, Robert Kennicott, Charles Girard, between 1857 and 1862. Several of Hayden's papers are extended monographs, comprehending the geology, palaeontology, ethnology and zoology of the various regions explored.

See also Warren's previous exploration, WARREN'S SIOUX EXPEDITION (1855).

The expedition for the examination of the Black Hills was carried out under orders from John B. Floyd, Sec. of War, dated May 7, 1857. Warren was accompanied by F. V. Hayden, geologist and palaeontologist, W. P. C. Carrington, meteorologist, S. Moffitt, surgeon, P. M. Engel, topographer, J. H. Snowden, and Lt. James Macmillan.

Specimens collected by Warren's parties were described in the Zoological Reports of the Pacific Railroad Surveys (1853), q. v., v. 8–10.

Reports

(1), House ed., Serial no. 998 & 999.

1858 WARREN, Gouverneur Kemble. . . . Preliminary report . . . of explorations in Nebraska and Dacotah. Washington, 1858. (In U. S. 35th Cong.. 2d sess., H. Ex. Doc. v. 2 & 3, pt. 1–2, no. 2, p. 620–747) Serials no. 998–999.

p. 620– 70 are in Serial no. 998.
p. 671–747 are in Serial no. 999.

(2), Senate ed., Serial no. 975 & 976.

————. Same . . . Washington, 1858. (In U. S. 35th Cong., 2d sess., Sen. Ex. Doc. v. 2 & 3, no 1, pt 1–2, p. 620–747) Serials no. 975–976.

p. 620– 70 are in Serial no. 975
p. 671–747 are in Serial no. 976.
Report rendered Nov. 24, 1858.
See also p. 585–88, of Serial no. 975.

(3), Reprint, 1875.

1875 ————. Preliminary report of explorations in Nebraska and Dakota, in the years 1855– '56– '57 . . . republished . . . Washington, Gov't print. office, 1875. 125 p. (U. S. Army. Engineers' Dept.)

Contents:

First pagination is that in Official Documents, Serials no. 975–976 & 998–999. Second pagination is that in Reprint, 1875.

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ch. 2, Physical geography of Nebraska . . .
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Serial no. 976 or 999

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Repr. 1875, p. 55–7.

p. 673–747 HAYDEN, F. V. Report: Catalogue of the collections in geology and natural history obtained by the expedition under the command of Lt. G. K. Warren. Written Nov. 28, 1858.
Assisted by J. S. Newberry & F. B. Meek.
In 1875 Repr., p. 59–125.

Contents:

p. 676–705 Geology and palaeontology.
In 1875 Repr., p. 63–90.
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p. 722– Fishes, by Charles GIRARD.
In 1875 Repr., p. 104.
p. 722– 23 Reptiles, by BAIRD & KENNICOTT.
In 1875 Repr., p. 104–5.
p. 723– 25 Mollusca, by Isaac LEA, & W. G. BINNEY.
In 1875 Repr., p. 105–7.
p. 726– 44 Botany.
In 1875 Repr., p. 107–22.
p. 744– 47 Nebraska Carices, by Chester DEWEY.
In 1875 Repr., p. 122–25.

Papers in Society Transactions

1857 MEEK, F. B., and HAYDEN, F. V. Descriptions of new species and genera of fossils collected by F. V. Hayden in Nebraska Territory under the direction of Lieut. G. K. Warren . . . with some remarks on the Tertiary and Cretaceous formations of the Northwest and the parallelism of the latter with those of other portions of the United States and Territories. . . . (Explorations of the War Department).

Rd Before Phila. Acad. Nat. Sc. (1812), April 28, 1875. In its Proc. v. 9, p. 117–48.

HAYDEN, F. V. Note explanatory of a map and section illustrating the geological structure of the country bordering on the Missouri River from the mouth of the Platte River to Fort Benton in lat. 47° 30′ N., long., 110° 30′ W. (Explorations under the War Dept.)

Rd before Phila. Acad. Nat. Sc. (1812), May 12, 1857. In its Proc. v. 9, p. 109–16, col. map.

————. Notes on the geology of the Mauvaises Terres of White River, Nebraska.

Rd before Phila. Acad. Nat. Sc. (1812), June 2, 1857. In its Proc. v. 9, p. 151–58.

1858 MEEK, F. B., and HAYDEN, F. V. Descriptions of new organic remains from northeastern Kansas, indicating the existence of Permian rocks in that territory.

Rd before Albany Inst. (1824), Mar. 2, 1858. In its Trans. v. 4, p. 73–88, 247–48, 258–59. 1858–64.

————. Descriptions of new organic remains collected in Nebraska Territory in the year 1857, by F. V. Hayden, attached to Warren's Expedition, with some remarks on the geology of the Black Hills and portions of the surrounding country.

Rd before Phila. Acad. Nat. Sc. (1812), Mar. 2 & Apr. 6, 1858. In its Proc. v. 10, p. 41–59, 89–90.

LEIDY, Joseph. Notice of remains of extinct Vertebrata from the valley of the Niobrara River, collected during Warren's Expedition . . . of 1857 in Nebraska, by F. V. Hayden.

Rd before Phila. Acad. Nat. Sc. (1812), Mar. 9, 1858. In its Proc. v. 10, p. 20–9.

HAYDEN, F. V. Explanations of a second edition of a geological map of Nebraska and Kansas based upon information obtained in Warren's Expedition to the Black Hills. . . .

Rd before Phila. Acad. Nat. Sc. (1812), June, 22, 1858. In its Proc. v. 10, p. 139–58, col. map.

MEEK, F. B., HAYDEN, F. V., and LEIDY, Joseph. Fossils of Nebraska. In Amer. J. Sc. (1818), v. 75, (ser. 2, v. 25), p. 439–42. May, 1858. Repr. from the "National Intelligencer." Mar. 16, 1858.

MEEK, F. B., and HAYDEN, F. V. Remarks on the lower Cretaceous beds of Kansas and Nebraska together with descriptions of some new species of Carboniferous fossils from the valley of the Kansas River. . . .

Rd before Phila. Acad. Nat. Sc. (1812), Dec. 21, 1858. In its Proc. v. 10, p. 256–66. Extracts in Amer. J. Sc. v. 77, p. 219–27. Mar. 1859.

1860 ————. On a new genus of patelliform shells from the Cretaceous rocks of Nebraska.

In Amer. J. Sc. (1818), v. 79 (ser. 2, v. 29), p. 33–5, 1 pl. Jan. 1860.

————. Descriptions of new organic remains from the Tertiary, Cretaceous and Jurassic rocks of Nebraska.

Rd before Phila. Acad. Nat. Sc. (1812), May 15, 1860. In its Proc. v. 12, p. 175–85.

————. Systematic catalogue with synonymy etc., of Jurassic, Cretaceous and Tertiary fossils collected in Nebraska by . . . Warren's Expedition. . . .

Rd before Phila. Acad. Nat. Sc. (1812), Oct. 2, 1860. In its Proc. v. 12, p. 417–32.

1861 HAYDEN, F. V. On the geology and natural history of the Upper Missouri.

Rd before Amer. Phil. Soc. (1769), July 19, 1861. In its Trans. n. s. v. 12, art. 1, p. 1–218, illus. col. map. 1863.

Contains Reports of progress for this exped., and WARREN'S SIOUX EXPED. (1855) & RAYNOLDS' EXPLOR. YELLOWSTONE (1859), q.v.

For contents of this article, see WARREN'S SIOUX EXPED. (1855): Papers on Natural History, 1861—Hayden.

1862 ————. Contributions to the ethnography and philology of the Indian tribes of the Missouri Valley.

Rd before Amer. Phil. Soc. (1769), May 16, 1862. In its Trans. n.s. v. 12, art. 3, p. 231-461, 2 pl. map. 1863.
Abstr. in Amer. J. Sc. (1818), v. 84, (ser. 2, v. 34), p. 57–66. July, 1862.
See also WARREN'S SIOUX EXPED. (1855), & RAYNOLDS' EXPLOR. YELLOWSTONE (1859).

1864 ————. Palaeontology of the Upper Missouri: a Report upon collections made principally by the expeditions under the command of Lieut. G. K. Warren, in 1855 and 1856. part. 1: Invertebrates.
Acc. by Smith. Inst. (1846), May, 1864. In its S. C. v. 14, art. 5, 146 p. 5 pl.
For dates of issue of parts, and contents, see under SMITH. INST. (1846), May, 1864.
See also WARREN'S SIOUX EXPED. (1855)

ARKANSAS GEOLOGICAL SURVEY (1857)

History

"The subject of a state geological survey of Arkansas was first brought to public attention by Gov. Elias N. Conway in his message to the legislature in 1856. Upon his recommendation the matter was taken into consideration, and the first geological survey of the state was begun under an act passed January 4, (approved Jan. 15), 1857. This act provided for the appointment of a state geologist by the governor, and an appropriation of $4,800 per annum, out of which all expenses were to be paid. Dr. David Dale Owen, then state geologist of Kentucky, was appointed state geologist of Arkansas, and entered upon his duties October 1, 1857. The results of the work done are given in his 'First Report . . . 1858' . . . ".

"The bill providing for the continuation of the survey passed in February, 1859; by its provisions the state geologist's salary was raised from $1,800 to $2,500, and an appropriation of $6,600 per annum was made for the survey work. Under this act Owen was again appointed state geologist. Before the next legislature convened Dr. Owen died (Nov. 13, 1860), and his second report . . . was edited by his brother Richard Owen and Prof. J. P. Lesley."

"The Civil War broke out shortly after the publication of Dr. Owen's Second Report and all such work was necessarily suspended in the southern states. No steps were taken to finish the geological survey of Arkansas until after the close of the war." HAYES,

1911, (U. S. Geol. Surv. Bull. no. 465), p. 17. (Repr. from BRANNER, J. C. Geol. Surv. Arkansas. Jour. of Geol. v. 2, p. 826–28. 1894).

During the life of the survey, Owen's assistants were Edward T. Cox, assistant geologist; William Elderhorst, chemical assistant; Robert Peter, chemist; Leo Lesquereux, botanist and palaeontologist; Joseph Lesley, assistant.

For a discussion of the geological contents of the Reports, see also MERRILL, (1), p. 482–83. See below, under Bibliography, Branner, 1894, and Merrill, 1920, for extended histories of the Survey. See also MERRILL. First 100 yrs Amer. Geol. 1924. p. 365–67.

Bibliography

1891 WILLIAMS, John Francis. General literature on the igneous rocks of Arkansas. Little Rock, 1891. (In Arkansas Geol. Surv. Ann. Rept. for 1890. v. 2, ch. 2, p. 7–18)
Annotated historical treatment of the writers.

1894 BRANNER, John Caspar. Geological surveys in Arkansas. (In Jour. of Geol. v. 2, no. 2, p. 826–36. Nov.–Dec. 1894)

————. Bibliography of the geology of Arkansas. Little Rock, 1894. (In Arkansas Geol. Surv. Ann. Rept. for 1891. v. 2, p. 319–40)
A later ed. pub. in 1909 (see below).

HARRIS, Gilbert Dennison. The Tertiary geology of southern Arkansas. Little Rock, 1894. (In Arkansas Geol. Surv. Ann. Rept. for 1892. v. 2, p. 1–6)
Brief historical sketch.

1909 BRANNER, John Caspar. Bibliography of the geology of Arkansas. Little Rock, 1909. (In Arkansas Geol. Surv. 1909. p. 97–164)
Arranged alphabetically by authors. Previous ed., pub. in 1894, (see above).

1920 MERRILL, George P[erkins], ed. Arkansas Geological Surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 13–27, port.)
Historical sketch of surveys prior to 1885.

Reports

1858 OWEN, David Dale, ELDERHORST, William, and COX, Edward T[ravers]. First report of a geological reconnaissance of the

northern counties of Arkansas, made during the years 1857 and 1858, by David Dale Owen, principal geologist, assisted by William Elderhorst, chemical assistant; Edward T. Cox, assistant geologist. Little Rock, Johnson & Yerkes, 1858. 256 p. illus. 7 pl. tab.

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Part 1, p. 1–64

p. 5– 7 OWEN, D. D. Introductory letter.
p. 9– 15 ————. Introduction.
p. 17– 64 ————. Report of a geological reconnaissance of part of Arkansas.

Part 2, p. 65–256

p. 65–141 ————. Report . . . continued . . .
p. 143– 91 ELDERHORST, William. Chemical report of the ores, rocks, and mineral waters of Arkansas. Written Sept. 1858.
p. 193–244 COX, E. T. Report of a geological reconnaissance of a part of the state of Arkansas made during the years 1857 and 1858. Written October 15, 1858.

1860 OWEN, David Dale, and others. Second report of a geological reconnaissance of the middle and southern counties of Arkansas made during the years 1859 and 1860 . . . by David Dale Owen, principal geologist, and Robert Peter, chemical assistant, M. Leo Lesquereux, botanist, Edward Cox, assistant geologist . . . Phila. C. Sherman & son, 1860. 433 p. illus. 14 pl. chart.

Report edited by Richard OWEN, & J. P. LESLEY.

CONTENTS:

p. 1–153 OWEN, D. D. Report.
p. 155– 62 LESLEY, Joseph. Survey of the Fourche Cove in Pulaski County, Arkansas. Made Dec. 1, 1860.
p. 163–287 PETER, Robert. Chemical analysis of the soils, subsoils, underclays, clays, and nitre earths of Arkansas collected by D. D. Owen and analysed by Robert Peter. Written July 30, 1860.
p. 289– 94 ELDERHORST, William. Chemical analyses made for the Geological Survey of Arkansas.
p. 295–345 LESQUEREUX, Leo. Botanical and palaeontological report. 9 pl. [56 fig.]
Rev. in Amer. J. Sc. v. 81, (ser. 2, v. 31), p. 431–35. May, 1861.
p. 346– 99 ————. Catalogue of the plants of Arkansas.
p. 401– 20 COX, E. T. Second report of a geological reconnaissance of a part of the state of Arkansas during the years 1859 and 1860.
p. 421– 33 Index.

IVES' EXPEDITION UP THE COLORADO RIVER (1857)

History

During the summer of 1857, Lt. J. C. Ives was ordered by the Secretary of War to explore the Colorado River, "the main object of which was to ascertain the navigability of the Colorado, with especial reference to the availability for the transportation of supplies to the various military posts in New Mexico and Utah."

Ives' party assembled in San Francisco in October, 1857, and reached the mouth of the Colorado November 28, 1857. The expedition terminated May 23, 1858. Ives' preliminary report was rendered in 1858 (see Bibliography, below), and his final report with accompanying scientific papers was made May 1, 1860, and published in 1861.

J. S. Newberry was the geologist and naturalist of the expedition; Messrs. H. B. Mollhausen and F. W. Egloffstein, artist and naturalist, and topographer respectively. Newberry was also the expedition's physician.

Large collections were made and described by Messrs. Newberry, Baird, Gray, Engelmann, Torrey, Thurber, ————————. For a review of the geological contents of the Report, see also MERRILL, (1), p. 477–78, with a map of the route followed, on p. 479. See also PACIFIC RR. SURV. (1853), v. 8–10, for the descriptions of animals collected on the expedition; the zoology of this expedition being similar to that described in the above series of explorations. See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 360–62.

Bibliography

1859 IVES, Joseph C[hristmas]. Preliminary report of the Colorado Exploring Expedition: 1857–58. Washington, 1859. (In U. S. 35th Cong., 2d sess., Sen. Ex. Doc. v. 2, no. 1, p. 608–19) Serial no. 975.

In Ann. Rept. of War Dept. for 1858.

Repr. (In U. S. 35th Cong., 2d sess., H. Ex. Doc. v. 2, no. 2, p. 608–19) Serial no. 998.

Report

1861 IVES, Joseph C[hristmas]. . . . Report upon the Colorado River of the West explored in 1857 and 1858 . . . under the direction of the office of explorations and surveys . . . Washington, 1861. [371 p.] (131 + 14 + 158 + 30 + 6 + 32 p.) illus. pl. port. maps, sect.

charts, tab. diagr. 4°. (In U. S. 36th Cong., 1st sess., H. Ex. Doc. v. 14, no. 90) Serial no 1058.

Rendered May 1, 1860. Rev. in Amer. J. Sc. v. 83 (ser. 2, v. 33), p. 387–403. May, 1862.

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3 NEWBERRY, J. S. Geological report. 158 p.
4 GRAY, Asa, and others. Botany. 30 p.
5 BAIRD, S. F. Zoology: Birds. 6 p.
Appx. Astronomical & meteorological observations. 32 p.

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Pt. 2, Hydrographic report. 14 p.
Pt. 3, NEWBERRY, J. S. Geological report. 158 p. 27 illus. 6 pl. [32 figs.] 2 maps.
p. 9– 12, ch. 1, Geology of coast of southern California
p. 13– 8, 2, Geology of route from San Diego to Fort Yuma
p. 19– 28, 3, . . . Of country bordering Lower Colorado
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p. 1–30, GRAY, Asa. Botany.
p. 12– 4, Cactaceae, by George ENGELMANN
Also in Repr. of E's Papers. 1887. p. 220–22. p. 20, by TORREY
p. 23, Convolvulaceae, by ENGELMANN
p. 26– 7, Euphorbiaceae, by ENGELMANN
Also in Repr. of E's Papers. 1887. p. 440–41.
p. 29–30, Graminiae, by George THURBER
Pt. 5, BAIRD, S. F. Zoology: List of birds. 6 p.
For zoology of this region, see General Report on Zoology of PACIFIC RR. SURV. (1853), v. 8–10, which covered the same territory.
Appx. Astronomical and meteorological observations. 32 p.

MICHLER'S SURVEY OF THE ISTHMUS OF DARIEN (1857)

History

Under authorization of an act approved March 3, 1857, Lt. Nathaniel Michler was ordered in July, 1857, to make a survey for an interoceanic ship canal near the Isthmus of Darien. The Survey was begun December 28, 1857, and was completed March 3, 1858.

Arthur Schott was selected as Michler's principal assistant, acting as naturalist and geologist on the survey. Charles and William Wood were his assistants in making the zoological collections. Michler had ten other assistants for his meteorological and surveying work.

Michler's Report was published in 1861. The natural history collections were described by Messrs. Schott, W. H. Harvey, Cope, D. C. Eaton, John Cassin, and Theodore Gill.

For several preliminary papers, see PAPERS IN SOCIETY TRANSACTIONS.

The final report appeared in two volumes, volume 1 containing the text and volume 2, the maps. For contents, see below.

Report

1861 MICHLER, Nathaniel. Report of a survey for an interoceanic ship canal near the Isthmus of Darien. Washington, 1861. 2 v. maps. tab. (In U. S. 36th Cong., 2d sess., Sen. Ex. Doc. v. 7, no 9, 2 parts) Serials no. 1085 & 1086.

v. 1, 457 p., Text; v. 2, Maps.

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v. 1, Serial no. 1085, 457 p.

p. 2– 23 MICHLER, N. Official reports.

p. 23– 99 ————. Chapter descriptive of the natural features of the country along the line of survey of the proposed interoceanic ship canal, etc., from the Gulf of Darien to the Pacific Ocean, via the Atrato and Truando Rivers.

p. 100– 47 ————. General outfit—climate—engineering observations . . .

p. 148– 68 SCHOTT, Arthur. Report on the physiography and geology of the Isthmus of Choco. Written June 1, 1859.

Appendixes

p. 169– 73 ———— Remarks on the geologic structure on the country, with accompanying descriptive table of geological specimens. Appx. A. tab.

p. 175– 79 *HARVEY, W. H., and SCHOTT, Arthur. Botany: Algae. Appx. B.

p. 179– 89 EATON, D. C., and SCHOTT, Arthur. Botany: Filices and Lycopodiaceae. Appx. C.

p. 190–211 SCHOTT, Arthur. Botany: Phanerogamae. Appx. D.

p. 212– 18 ———— Zoology: Mammalia. Appx. E.

p. 219– 54 CASSIN, John, and SCHOTT, Arthur. Zoology: Birds: Appx. F.

p. 255– 56 SCHOTT, Arthur. Zoology: Reptiles and Amphibia. Appx. G.

p. 257– 59 GILL, Theodore. Zoology: Fishes. Appx. H. Written Jan. 14, 1861.

p. 260– 68 SCHOTT, Arthur. Zoology: Invertebrates. Appx. I.

p. 269–457 ———— Physiographic tables on the Isthmus of Choco comprising the results of Geodetic Survey. Appx. K.

v. 2, Serial no. 1086

Contains the Maps. 17 pl. (maps).

Papers in Society Transactions

1858 CASSIN, John. Description of a new tanager (Calliste lavinia) from the Isthmus of Darien, and a note on Selenidera spectabilis, Cassin.

Rd before Phila. Acad. Nat. Sc. (1812), Sept. 21, 1858. In its Proc. v. 10, p. 177–78.

1860 ———— Catalogue of birds collected during a survey of a route for a ship canal across the Isthmus of Darien . . . by Lieut. Michler . . . with notes and descriptions of new species.

Rd before Phila. Acad. Nat. Sc. (1812), April 17, & May 22, 1860. In its Proc. v. 12, p. 132–44, 188–97.

1862 Cope, E. D. Catalogue of the Reptiles obtained during the explorations of the Parana and . . . by Capt. T. J. Page; and of those procured by Lt. Michler, commander of the expedition conducting the survey of the Atrato River.

Rd before Phila. Acad. Nat. Sc. (1812), Sept. 9, 1862. In its Proc. v. 14, p. 346–59.

Michler's Exped., p. 355–59.

NORTHWEST BOUNDARY SURVEY (1857)

History

"On August 11, 1856, almost exactly ten years after the proclaiming of the treaty of limits, which for brevity may be called the Buchanan-Pakenham Treaty, Congress passed an Act to carry its first article into effect. This act provided for the appointment of a commissioner and chief astronomer and surveyor on the part of the United States to unite with similar officers to be appointed by Great Britain, to survey the boundary and mark it with monuments.

"It also provided for the appointment of an assistant astronomer and surveyor, a secretary and a clerk; it appropriated $11,000 for the annual salary of these five officers, $60,000 for provisions, transportation and contingencies; it restricted the work to the northern boundary of Washington, which then extended from the Rocky Mountains to the Pacific; and finally, it authorized the President to direct the employment of such officers, assistants and vessels of the Coast Survey as he might deem necessary and useful. . . .

"Under this law, Mr Archibald Campbell was appointed commissioner on Feb. 14, 1857, and on the same day, Lieut. J. G. Parke, Corps of Engineers, U. S. A., was appointed chief astronomer and surveyor, each at a salary of $3,000 per annum. Mr Campbell remained commissioner to the end in 1869. On the outbreak of the Civil War, Lt. Parke left the work and never returned to it. . . . Mr Joseph S. Harris served as assistant surgeon and

naturalist from March 27, 1857, to March 31, 1864. . . . Mr George Gibbs acted as geologist and interpreter, from June 22, 1857, till May 31, 1862. . . . Dr C. B. R. Kennerly served as surgeon and naturalist from March 22, 1857, till his death in 1861. . . ." BAKER, Marcus. 1900. p. 13–4. (See Bibliography, below.)

"The field work of the Survey of the Northwest Boundary, Archibald Campbell, commissioner, has been completed, furnishing data for a topographical report, embracing the country from the Pacific Coast to the summit of the Rocky Mountains, extending to the north and south of the 49th parallel, north latitude. . . .

"In the department of natural history, reports have been finished, or are in progress, of the following gentlemen: Botany, by Dr John Torrey; Fossil plants, with plates of new species, by Dr J. S. Newberry; Marine Invertebrata, excepting Mollusca, by Dr Wm Stimpson, with plates; recent shells, with plates, by Philip P. Carpenter; Fossil Invertebrata, with plates by F. B. Meek; Fossil Infusoria, by Mr Arthur M. Edwards; Fishes, with the exception of Salmonidae, Theodore Gill; Monograph of the Salmonidae, George Suckley, with plates of new and unfigured species; Birds, by Dr George Suckley and Elliott Coues, with special monographs of the grouse family, by Dr Suckley, and of the gulls, divers, and Grelles, by Mr Coues, illustrated with plates, showing the specific differences of these complicated families; Report on Mammals, by Dr George Suckley, with monographs of some of the smaller animals, by Prof. S. F. Baird; Coleopterous insects, by Dr J. L. Le Conte; Non-coleopterous insects, by Mr P. R. Uhler; several reports on the geology of the country explored, by George Gibbs." F. V. HAYDEN. Amer. J. Sc. v. 84 (ser. 2, v. 34), p. 99–100. July, 1862. See also v. 85 (ser. 2, v. 35), p. 239. Mar. 1863.

A comparatively brief Report was published in the United States documents, in 1869 (see below, REPORTS). The Final Report and the natural history reports were never published, due chiefly to the Civil War, and the misplacing of the MS which were discovered in 1898 (see KLOTZ, under Bibliography, 1917, below). Many of the natural history reports were printed in part in various scientific publications of the day (see below, PAPERS ON NATURAL HISTORY).

A very good extended account of various aspects of the Survey will be found in Baker's account (see Bibliography: 1900, below).

Lt. J. G. Parke's brief Report was published in the Documents,

in 1860. Some of the specimens collected on the Survey were described in the Zoological Reports of the Pacific Railroad Surveys (1853), v. 8, 9 & 10 (q. v.).

Bibliography

1900 BAKER, Marcus. Survey of the northwestern boundary of the United States, 1857–1861. Washington, Gov't print. office, 1900. 78 p. (In U. S. Geol. Surv. Bull. no. 174)

Comprehensive account of the Survey.

1917 KLOTZ, Otto. The history of the forty-ninth parallel survey west of the Rocky Mountains. (In Geogr. Rev. v. 3, no. 5, p. 382–87, illus. May, 1917)

Brief account of the accidental discovery of the long sought MS reports of the Survey in July, 1898.

Reports

1860 PARKE, J[ohn] G[rubb]. Report . . . Washington, 1860. (In U. S. 36th Cong., 1st sess., Sen. Ex. Doc. no. 16, p. 2–7) Serial no 1031.

Repr. in Baker's Account (U. S. Geol. Surv. Bull. no. 174. p. 66–71. 1900)

Report made Nov. 12, 1859.

1869 CAMPBELL, Archibald. Report . . . on the Northwest Boundary Commission and Survey . . . Washington, 1869. (In U. S. 40th Cong., 3rd sess., H. Ex. Doc. v. 7, no. 86. p. 93–6) Serial no. 1381.

Part of the Message from the President of the United States (Grant), concerning the Northwest Boundary Commission. 102 p.

Papers on Natural History

1857 KENNERLY, C. B. R. Description of a new species of Cypselus Borealis, collected on the Northwestern Boundary Survey.

Rd before Phila. Acad. Nat. Sc. (1812), Nov. 24, 1857. In its Proc. v. 9, p. 202–3.

1858 SUCKLEY, George. Descriptions of several new species of Salmonidae, from the northwest coast of America.

Rd before N. Y. Lyc. Nat. Hist. (1817), Dec. 6, 1858. In its Annals. v. 7, art. 1, p. 1–10. Dec. 1858.

1861 ———— Notices of new species of North American Salmonidae, chiefly in the collection of the Northwest Boundary Commission . . collected by C. B. R. Kennerly.

Rd before N. Y. Lyc. Nat. Hist. (1817), in June, 1861. In its Annals. v. 7, p. 306–13.

UHLER, P. R. Descriptions of four species of Hemiptera collected by the Northwest Boundary Survey.

Rd before Phila. Acad. Nat. Sc. (1812), Sept. 10, 1861. In its Proc. v. 13, p. 284–86.

MEEK, F. B. Descriptions of new Cretaceous fossils collected by the Northwest Boundary Commission on Vancouver and Sucia Island.

Rd before Phila. Acad. Nat. Sc. (1812), Oct. 8, 1861. In its Proc. v. 13, p. 314–18.

1862 NEWBERRY, J. S. Descriptions of the fossil plants collected by George Gibbs, geologist to the Northwest Boundary Commission. . . .

Rd before Bost. Soc. Nat. Hist. (1830), Oct. 1, 1862. In its Jour. v. 7, p. 506–24. Jan. 1863.

1864 STIMPSON, William. Description of new species of marine Invertebrata from Puget Sound, collected by the naturalists of the Northwest Boundary Commission. . .

Rd before Phila. Acad. Nat. Sc. (1812), May 24, 1864. In its Proc. v. 16, p. 153–61.

1865 *CARPENTER, P. P. Diagnosis specierum et varietatum novarum Molluscorum, prope sinum Pugetianum a Kennerlio Doctore nuper decesso collectorum.

Rd before Phila. Acad. Nat. Sc. (1812), April 4, 1865. In its Proc. v. 17, p. 54–64.

1869 GIBBS, George. Physical geography of the northwestern boundary of the United States.

In Amer. Geogr. Soc. N. Y. Jour. v. 3, p. 134–57, 1872; & v. 4, p. 298–392, illus. pl. 1873.

Rd before Society, Nov. 11, 1869.

ILLINOIS NATURAL HISTORY SOCIETY, BLOOMINGTON (1858)

History

"This Society was organized June 30th, A. D., 1858, and existed simply as an organization until February 22d, A. D., 1861, when it received its charter from the Legislature.

"The plan for a Society devoted to the advancement of science in this state was discussed at an annual meeting of the Illinois Teachers' Association, held at Decatur, in December, 1857, on which occasion a meeting was called, to be held at the State Normal University, in Bloomington, on the day preceding the annual examination. Said meeting—the proceedings of which are published in a preceding volume of the State Agricultural Transactions—resulted in the organization of this Society.

"The demand for this movement seemed to proceed from a want of accurate knowledge in nearly all departments of natural history in the state; and also, from a desire that all facts and discoveries

in a field so vast as Illinois, should be made immediately subservient to the great ends of popular education.

"The first year of our operations was occupied in securing the cooperation of naturalists who lived in various parts of the state. The plans and objects of the Society were heartily endorsed by them, and each began the work peculiar to his own department, at home. This plan has been pursued until the present time, and many portions of the state have been thoroughly explored.

"The results of these surveys and explorations have been placed in the hands of the curator, and during the last year have been arranged in the Museum of the Society, and in the Normal University at Bloomington." WILBER, C. D. Report of the Secretary. (In Illinois State Agric. Soc. Trans. v. 4, p. 535–36. 1861.) Also repr. in 2d ed. of this Rept., published separately, p. 7–8.

J. B. Turner was the first President of the Society, and G. P. Rex, its first secretary. Among the vice-presidents were J. H. McChesney, Frederick Brendel, and A. M. Gow. C. D. Wilber later became its active secretary. Meetings were held annually, and a number of auxiliary societies throughout the state were attached to the larger Society.

Papers read before the Society were published for several years in the Transactions of the Illinois State Agricultural Society (see below, PAPERS ON NATURAL HISTORY).

Among its curators and members of committees on natural history matters were: E. Hall, George Vasey, M. S. Bebb, and S. B. Mead, botany; Oliver Everett, J. W. Foster, C. D. Wilber, O. D. W. White, geology and mineralogy; A. H. Worthen, M. Davis, James Shaw, and J. P. Reynolds, palaeontology; B. D. Walsh, Cyrus Thomas, J. A. Sewall, H. W. Boyd, and William Le Baron, entomology; Robert Kennicott, W. D. Eddy, and J. Johnson, herpetology; Adam Nichols, W. H. Githens, and L. Watson, ichthyology; Wm. P. Gearhard, mammology; J. W. Velie, R. H. Holder, and A. M. Gow, ornithology.

Bibliography

1859 ILLINOIS NATURAL HISTORY SOCIETY. Proceedings . . . for 1858–1862. 1859–63. (In Illinois State Agric. Soc. Trans. v. 3–5)

For 1858, in v. 3, p. 637– 61
1859, v. 3, p. 662– 85

1860, v. 4, p. 535– 95
1861, v. 4, p. 597–675
1862, v. 5, p. 469–504

Papers for 1860–61, repr. in separate ed., pub. in 1861, see next entry.

Noted, under PAPERS ON NATURAL HISTORY, as 2d ed.

1862 ————. Transactions of the . . . edited by C. D. Wilber, secretary . . . second edition. Springfield, Ill., 1861. 194 p. illus. pl. p. 7–8, History of Society; p. 14–6, Constitution and Charter of the Society.

1907 FORBES, S[tephen] A[lfred]. History of the former natural history societies in Illinois. (In Science, n. s. v. 26, p. 892–98. Dec. 27, 1907)

Papers on Natural History

1858 TURNER, J. B. Microscopic insects. T. v. 3, p. 644–50. Rd June 30.
BRENDEL, Frederick. Forests and forest trees. T. v. 3, p. 651–61. Rd June 30.

1859 THOMAS, Cyrus. The study of natural history. T. v. 3, p. 665–70. Rd June 30.

BRENDEL, Frederick. On meteorology in connection with botanical investigations. T. v. 3, p. 671–75. Rd June 30.

VASEY, George. Mosses of Illinois. T. v. 3, p. 676–79. Rd June 20.
ROE, E. R. Notes on the great drouth in '53 and '54. T. v. 3, p. 680–81. Rd June 20.

THOMAS, Cyrus. Orthoptera of Illinois. T. v. 3, p. 682–85. Rd June 20.

1860 TURNER, J. B. Power, force, matter: their diversity, unity, simplicity and harmony, the basis of all science and all knowledge. T. v. 4, p. 545–63. Rd in June.
Also in 2d ed., 1861. p. 7–35.

EVERETT, Oliver. Geology of a section of the Rock River Valley, from Oregon, in Ogle County to Sterling, in Whiteside County. T. v. 4, p. 581–86. Rd June 27.
Also in 2d ed., 1861, p. 53–8.

WILBER, C. D. Mastodon giganteus. T. v. 4, p. 587–92, illus.
Also in 2d ed., 1861, p. 59–64, illus.

BRENDEL, Frederick. The water-lily; on the peculiar growth of the water-lily (Nelumbium luteum, Willd.) T. v. 4, p. 593–95, 1 pl. Rd in June.
Also in 2d ed. 1861, p. 65–7, 1 pl. [7 fig.]

GOW, A. M. Natural history in schools. T. v. 4, p. 615–25. Rd Dec. 25.
Also in 2d ed., 1861, p. 87–97.

1861 HOLDER, R. H. Taxidermy: directions for collecting and preserving specimens in ornithology. T. v. 4, p. 597–603, 5 pl. Rd in July.
Also in 2d ed., 1861, p. 69–75, 5 pl.

————. Birds of Illinois: catalogue. T. v. 4, p. 605–13.
Also in 2d ed., 1861, p. 77–85.

BLODGETT, J. H. Object lessons. T. v. 4, p. 627–30.
Also in 2d ed., 1861, p. 99–102.

THOMAS, Cyrus. Notes on Illinois insects. T. v. 4, p. 631–49.
Also in 2d ed., 1861, p. 103–21.

————. Mammals of Illinois; catalogue. T. v. 4, p. 651–61.
Also in 2d ed., 1861, p. 123–33.

————. Plan for a natural history survey. T. v. 4, p. 663–65.
Also in 2d ed., 1861, p. 135–37.

VASEY, George. Additions to the flora of Illinois. T. v. 4, p. 667–71.
Also in 2d ed., 1861, p. 139–43.

WILBER, C. D. Museum of the Illinois State Natural History Society. T. v. 4, p. 673–75, 1 pl.
Also in 2d ed., 1861, p. 145–47, 1 pl.

WALSH, B. D. Insects injurious to vegetation in Illinois. T. v. 5, p. 469–81.
Also in 2d ed., 1861, p. 149–63.

1862 ————. The army-worm and its insect foes—the remedy. T. v. 5, p. 482–504, illus.
Also in 2d ed., p. 163–94. The article appeared here first.

1863 WINCHELL, Alexander. On the origin of the prairies of the valley of the Mississippi. Rd in June.
In Amer. J. Sc. (1818), v. 88, p. 332–44, 444–45. July, 1864.

MULLAN'S EXPEDITION FROM FORT WALLA-WALLA TO FORT BENTON ON THE MISSOURI RIVER (1858)

History

In connection with the construction of a military road between Fort Walla-Walla and Fort Benton, on the Columbia and Missouri Rivers respectively, Lt. John Mullan made various explorations during a period extending from March, 1858, to September, 1862.

Mullan's Report was published in 1863. Collections of fossils and plants and other specimens were made at intervals. See below for paper describing fossils from Nebraska.

Report

1863 MULLAN, John. Report on the construction of a military road from Fort Walla-Walla on the Columbia River to Fort Benton on

the Missouri River. Washington, 1863. 363 p. illus. pl. maps. (In U. S. 37th Cong., 3rd sess., Sen. Ex. Doc. no 43) Serial no. 1149.

Papers in Society Transactions

1862 MEEK, F. B., and HAYDEN, F. V. Descriptions of new Cretaceous fossils from Nebraska Territory . . . collected by Lt. Mullan's Expedition. . . .

Rd before Phila. Acad. Nat. Sc. (1812), Jan. 7, 1862. In its Proc. v. 14, p. 21–8.

POTOMAC-SIDE NATURALISTS' CLUB, WASHINGTON, D. C. (1858)

History

"On January 29, 1858, with the view of forming a scientific club, especially devoted to natural history, the following gentlemen met at Mr Stimpson's house at seven o'clock in the evening: Mr T. R. Peale, Dr E. Freeman, Prof. G. C. Schaeffer, Dr Charles Girard, Dr F. V. Hayden, Dr J. G. Cooper, Mr Robert Kennicott, Mr William Stimpson, with Professor Turner and Mr W. R. Smith recognized as present in spirit and thus original members."

"They adopted the name of the Potomac-Side Naturalists' Club, with the provisions that: the meetings shall be held every Monday evening; the members shall severally entertain the club in rotation in alphabetical order. The member whose name follows the entertainers shall at each meeting deliver a lecture or read a paper upon some subject in natural science chosen by himself."

"Two very interesting Record Books still remain, with accounts of each meeting, members present, papers read, and discussions following. In the various departments of investigation and discussion, geology most frequently occupied the evening, with botany, zoology and general science following closely after, in frequency of notice. . . ."

"Field meetings were held frequently and botanical novelties exhibited when discovered. In 1864, being the seventh year of the existence of the Club, the second volume of Records was begun, recording the 128th meeting. But on March 26, 1866, the record of the 146th meeting closes with 'adjoined sine die.'" CHICKERING, J. W., Jr. (See Bibliography, below.)

Bibliography

1906 CHICKERING, J[ohn] W[hite], Jr. The Potomac-Side Naturalists' Club, Washington, D. C. (In Science. n. s. v. 23, p. 264–65. Feb. 16, 1906)

SIMPSON'S UTAH EXPEDITION (1858)

History

"Under date of December 28, 1858, I had the honor to submit to the headquarters of the Department of Utah, a Map and Report of my explorations and opening under instructions from Gen. A. S. Johnston, commanding the Department, of a new wagon-route, from Camp Floyd to Fort Bridger, Utah, by way of Timpanogos River Canon and White Clay Creek and of my explorations west of Camp Floyd, as far as Short Cut Pass, prefatory to my more extended explorations during the ensuing year for a direct wagon route from that post to Carson Valley." (See below: REPORT (1)—.)

"I have now the honor to submit a Report and Map of my explorations and opening in 1859, of two wagon-routes across the Great Basin of Utah, from Camp Floyd to Carson Valley, by means of which the traveling distance from Camp Floyd to San Francisco, when compared with the old Humboldt River route, has been shortened, in the case of my more southern route, 254 miles."

"The Report will be found also to include the exploration by direction of Gen. Johnston, of a new pass from the Valley of the Timpanogos River over the Uintah range of mountains into the Green River Valley, by means of which, it is believed, a wagon-route can be aimed thence to Denver City, in Kansas, and thus, by this route, in connection with my route across the Great Basin, a more direct route be obtained across the continent to San Francisco than any which at the present time exists. . . ." SIMPSON, J. H. Letter of transmittal, Feb. 5, 1861, p. 7. (See REPORT: (2), below.)

Simpson's Report for his 1858 explorations was made Dec. 28, 1858, and published in 1859 (see below, REPORTS (1)). He was accompanied by Henry Engelmann as geologist of the party.

Simpson's Report for his 1859 explorations was rendered Feb. 5, 1861, but not published until 1876, when it was issued under the direction of the Engineer Bureau. Henry Engelmann continued as geologist during these explorations.

In addition to Reports from Simpson and Engelmann (on the geology of the country traversed), descriptions of the collections made were contributed by S. F. Baird, F. B. Meek, Theodore Gill, George Engelmann, Garland Hurt and Philip Harry.

Charles S. McCarthy made ornithological collections on the journey. See also MERRILL, (1), p. 502, for critical review of the geological contents of the Report. See also note by F. V. Hayden, in Amer. J. Sc. v. 84 (ser. 2, v. 34), p. 99. July, 1862, regarding the suspension of the printing of the Report. See below the REPORTS and their Contents; and some papers published on the Expedition prior to the publication of the Report in 1876: see PAPERS IN SOCIETY TRANSACTIONS. See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 389–90.

In addition to Engelmann, Simpson's staff consisted of Lts. J. L. Kirby Smith and H. S. Putnam, Charles S. McCarthy, taxidermist, H. V. A. Von Beckh, artist, and William Lee and Edward Iagiello, assistants. Engelmann was also officially meteorologist and botanical collector.

Bibliography

1869 SIMPSON, James Hervey. The shortest route to California, illustrated by a history of explorations of the Great Basin of Utah with its topographical and geological character and some account of the Indian tribes. Phila. Lippincott, Grambo & co., 1869. 58 p. front. map.

Reports

(1), 1858 Explorations, Serial no. 984

1859 SIMPSON, J[ames] H[ervey]. Report . . . of reconnaissances, etc., in the Territory of Utah, in the months of August, September and October, 1858, under instructions from Brevet Brig. Gen. A. S. Johnston . . . Washington, 1859. 84 p. map. (In U. S. 35th Cong., 2d sess., Sen. Ex. Doc. v. 10, no. 40) Serial no. 984.
Rendered Dec. 28, 1858.

CONTENTS:

p. 3–44 SIMPSON, J. H. Report.

p. 45–75 ENGELMANN, H[enry]. Preliminary report on the geology of the country between Fort Bridger and Camp Floyd, Utah Territory, and southwest of the latter place, along Capt. J. H. Simpson's routes, 1858. Appx. A. Written Dec. 25, 1858.

p. 75–84 Miscellany.

(2), Final Report, 1859 Explorations, 1876

1876 SIMPSON, J[ames] H[ervey]. . . . Report of explorations across the Great Basin of the Territory of Utah for a direct wagon-route from Camp Floyd to Genoa, in Carson Valley, in 1859 . . . made by authority of the Secretary of War, and under instructions from Bvt. Brig. Gen. A. S. Johnston, commanding the Department of Utah. Washington, Gov't print. office, 1876. 518 p. 24 pl. sect. tab. illus. fold. map. diagr. prof. 4°. (U. S. War Dept. Engineer Dept.)

Originally submitted Feb. 5, 1861.

CONTENTS:

p. 7– 10 SIMPSON, J. H. Letter of transmittal.

p. 11– 38 ————. History of explorations within the Great Basin of the Territory of Utah, from the time of Father Escalante, in 1776, to the present period (1861), and a general description of the country.

p. 39–148 ————. Report and Journal.

Appendixes

p. 149– 55 ————. Itineraries of wagon-routes. Appx. A, B, C.

p. 157– 66 ————. Astronomical and geographical positions. Appx. D.

p. 167–207 ENGELMANN, Henry. Barometrical and meteorological observations. Dec. 5, 1860. Appx. E.

p. 209– 13 SIMPSON, J. H. Table of distances. . . . Appx. F.

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p. 221– 30 Magnetic observations and results. Appx. H.

p. 231– 41 ————. Railroad routes from Atlantic to Pacific Ocean. Appx. HH.

p. 243–336 ENGELMANN, Henry. . . . Report on the geology of the country between Fort Leavenworth, K. T., and the Sierra Nevada near Carson Valley. Appx. I. Written July 19, 1860 & Dec. 29, 1875.

p. 337– 73 MEEK, F. B. . . . Report on the palaeontological collections of the Expedition. Appx. J. 5 pl. [40 fig.] Written May 23, 1860 & revised Nov. 8, 1875.

p. 368–73 Catalogue of the remains contained in the collection.

p. 375– 81 BAIRD, S. F. . . . Ornithology: a list of birds collect by Charles S. McCarthy. Appx. K.

p. 383–431 GILL, Theodore. . . . Report on ichthyology. Appx. L. 9 pl. [50 fig.] Written Dec. 11, 1860.

p. 433– 47 ENGELMANN, George. . . . Report on the botany of the expedition. Appx. M. 3 pl. Written Dec. 31, 1860.

p. 449– 55 HURT, Garland. Population and resources of the territory of Utah. Appx. N.
p. 457– 64 ————. . . . Indians of Utah. . . . Appx. O.
p. 465– 74 COLLINS, C. R. Report of the languages of the different tribes of Indians of Utah. . . . Appx. P.
p. 475– 86 KERN, E. M. . . . Journal of an exploration of Mary's or Humboldt River, Carson Lake and Owens River and Lake in 1845. Appx. Q.
Undertaken while under the command of Fremont in FREMONT'S EXPED. TO OREGON & CALIFORNIA (1845), q.v.
p. 487– 95 HARRY, Philip. Journeyings of Father Escalante, from Santa Fe to Utah Lake and the Moqui Villages in 1776. Appx. R.
p. 497–518 Index.

Papers in Society Transactions

1860 SIMPSON, J. H. Notice of geological discoveries in . . . recent explorations across the continent.
Rd before Phila. Acad. Nat. Sc. (1812), April 17, 1860. In its Proc. v. 12, p. 126–31.
MEEK, F. B. Descriptions of new fossil remains collected in Nebraska and Utah by the Exploring Expeditions under Capt. J. H. Simpson. . . .
Rd before Phila. Acad. Nat. Sc. (1812), July 3, 1860. In its Proc. v. 12, p. 308–15.
1862 ENGELMANN, Henry. Topaz in Utah.
Rd before Acad. Sc. St. Louis (1856), April 21, 1862. In its Trans. v. 2, p. 114.
ENGELMANN, George. Additions to the Cactus flora of the Territory of the United States.
Rd before Acad. Sc. St. Louis (1856), Mar. 17, 1862. In its Trans. v. 2, p. 197–204.

TEXAS GEOLOGICAL SURVEYS (1858)

History

By virtue of an Act passed February 10th by the State Legislature, a geological survey of the state of Texas was authorized. It was also intended as an agricultural survey.

Benjamin Franklin Shumard was appointed state geologist, Aug. 28, 1858; George Getz Shumard, assistant geologist; W. P. Riddell, chemist and assistant geologist; A. P. Roessler, topographer; Caleb G. Forshey and Swante Palm, meteorologists.

Active work was begun in January, 1859. S. B. Buckley was added to the staff early in 1860 in the capacity of collector of

plants. Shumard was removed as state geologist by Gov. Houston for political reasons in the late fall of 1859. Francis T. Moore was appointed in his place.

With the outbreak of the Civil War, the Survey was suspended and reports requested of both Shumard and Moore. Buckley was appointed to the state geologist's position shortly after the close of hostilities and rendered a Report in 1866. Shumard's only Report, a brief one, was published in 1859. (See REPORTS, below.)

See MERRILL, (1), p. 487–88, 508–9, for criticism of the geological aspects of the Survey; and the thorough account by HILL (see BIBLIOGRAPHY, below). See also MERRILL. First 100 yrs. Amer. Geol. 1924. p. 371–72, 401–2.

Shumard published a number of papers concerning the geology of the state which were published in the organs noted below under PAPERS, q. v.

According to Merrill (see Bibliography: 1920, below), the state expended $15,073 on the surveys under Shumard and Moore.

Bibliography

1874 BUCKLEY, S[amuel] B[otsford]. History of the Survey. Houston, 1874. (In his 1st Ann. Rept. Geol. & Agric. Surv. Texas. p. 6–13)

1886 SHUMARD, George Getz. A partial report on the geology of western Texas, consisting of a general geological report and a journal of geological observations along the route travelled by the expeditions between Indianola, Texas, and the Valley of the Mimbres, New Mexico, during 1855 and 1856, with an appendix giving a detailed report on the geology of Grayson County. Austin, 1886. 145 p.

See also Amer. J. Sc. ser. 3, v. 33, p. 73–5. 1887.

1887 HILL, Robert T[homas]. . . . The present condition of knowledge of the geology of Texas. Washington, Gov't print. office, 1887. 95 p. (In U. S. Geol. Surv. Bull. no. 45. p. 379–473)

Thorough historical review of the contributions to Texas geology made by the various state surveys and those federal exploring expeditions which had visited the state up to that time.

1900 SIMONDS, Frederic W[illiam]. A record of the geology of Texas for the decade ending December 31, 1896. Austin, Texas, 1900. (In Texas Acad. Sc. v. 3, p. 17–296)

1920 MERRILL, George P[erkins], ed. Texas Geological Surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 471–96, port.)

History of surveys to 1885.

Reports

1859 SHUMARD, B[enjamin] F[ranklin]. First report of progress of the geological and agricultural survey of Texas. Austin, Texas, 1859. 17 p.

1866 BUCKLEY, S[amuel] B[otsford]. A preliminary report of the geological and agricultural survey of Texas. Austin, 1866. 81 + 6 p.

Papers in Society Transactions

1859 SHUMARD, B. F. The Geological Survey of Texas, Galveston, 1859–60. (In Texas Almanac. p. 199–200.)

1860 ————. State house artesian well at Austin. (In Texas Almanac. 1860. p. 161–62.)

————. Descriptions of new Cretaceous fossils from Texas.
Rd before Acad. Sc. St. Louis (1856), May 7, 1860. In its Trans. v. 1, p. 590–610.
Abstr. in (Texas Almanac. 1861. p. 203–5).

————. Observations upon the Cretaceous strata of Texas.
Rd before Acad. Sc. St. Louis (1856), May 21, 1860. In its Trans. v. 1, p. 582–90.

————. Descriptions of five new species of Gasteropoda from the coal measures, and a Brachiopod from the Potsdam sandstone of Texas.
Rd before Acad. Sc. St. Louis (1856), June 18, 1860. In its Trans. v. 1, p. 624–27.

1861 ————. Descriptions of new Cretaceous fossils from Texas.
Rd. before Bost. Soc. Nat. Hist. (1830), Sept. 4, 1861. In its Proc. v. 8, p. 188–205. Sept.–Oct. 1861. Collected by G. G. Shumard & A. B. Roessler.

————. The primordial zone of Texas, with descriptions of new fossils.
In Amer. J. Sc. (1818), ser. 2, v. 32, p. 213–21. Sept. 1861.

BUCKLEY, S. B. Description of new plants from Texas: no. 1.
Rd before Phila. Acad. Nat. Sc. (1812), Dec. 24, 1861. In its Proc. v. 13, p. 448–63.

1862 ————. Description of new plants from Texas: no. 2 & 3.
Rd before Phila. Acad. Nat. Sc. (1812), Jan. 21, & Feb. 18, 1862. In its Proc. v. 14, p. 5–10, 88–100.

GRAY, Asa. Notes upon "The descriptions of new plants from Texas, by S. B. Buckley. . . ."
Rd before Phila. Acad. Nat. Sc. (1812), Apr. 29, 1862. In its Proc. v. 14, p. 161–68.

SHUMARD, B. F. Descriptions of new Palaeozoic fossils.
Rd before Acad. Sc. St. Louis (1856), May, 1862. In its Trans. v. 2, p. 108–13.

GRAY, Asa. A report upon S. B. Buckley's "Description of plants: no. 3, Gramineae". . . .
Rd before Phila. Acad. Nat. Sc. (1812), Aug. 5, 1862. In its Proc. v. 14, p. 332–37.

WYOMING HISTORICAL & GEOLOGICAL SOCIETY, WILKES-BARRE, PA. (1858)

History

This Society was organized on February 11, 1858, at the Old Fell Tavern, Northampton Street, Wilkes-Barre, Pa., "to commemorate the successful experiment made by the Hon. Jesse Fell, Feb. 11, 1808, of burning the Wyoming anthracite coal in a domestic grate."

Its first volume of proceedings was published in 1858–1884. See below under BIBLIOGRAPHY, the History of the Society.

Bibliography

1858 WYOMING HISTORICAL & GEOLOGICAL SOCIETY. Proceedings and collections . . . Wilkes-Barre, Pa. 1858–date. v. 1–date.

1907 ————. History, charter, by-laws, and list of officers, members . . . of the . . . Wilkes-Barre, Pa., 1907. 44 p. illus. pl. port.

Bibliography of Publications, p. 29–35.

Papers on Natural History

1858–69 MAXWELL, V. L. Lectures on coal. Proc. v. 1, no. 1, p. 1–53. 1858–69.

ENTOMOLOGICAL SOCIETY OF PHILADELPHIA (1859)

History

"On February 14, 1859, James Ridings, George Newman and Ezra Cresson, met together at the residence of the latter, no. 728 Erie Street, Philadelphia, with the view of forming a Society "whose object shall be the advancement of entomological science, by ascertaining the name, locality and habits of insects found within the United States."

"After discussing the matter thoroughly, they decided to invite to the house on the evening of the 22d of the same month, such of their acquaintances as are interested in the study, and who would likely become members . . . On February 22, 1859, the meeting was held with the following persons present: Thomas B. Wilson, Robert Jack, James Ridings, Thomas B. Ashton, George Newman, Charles Wilt, E. T. Cresson, Louis Schneider, J. H. B. Bland, William Wolter, J. W. McAllister, Henry Feldman, George Hill, Thomas Cox, and John Pearsall . . .

"After a full discussion of the subject, it was unanimously resolved to form such a society . . . and a committee appointed to draft a constitution and by-laws and propose a suitable name for the Society. The Committee made a full report at a meeting held March 1, 1859, and suggested the name, "The Entomological Society of Philadelphia," which report was adopted . . ." From CRESSON. p. 13–4. (See Bibliography: 1909, below).

"During the year 1860, Mr E. T. Cresson presented his entire collection of Coleoptera. In 1863, Mr W. H. Edwards presented a large and beautiful collection of European moths. On November 14th, 1864, the thanks of the Society were voted to Dr T. B. Wilson for his liberal donation of Coleoptera, Hymenoptera and Hemiptera, being the original collections of Prof. Felipe Poey. In June, 1865, the executor of Dr T. B. Wilson, deceased, presented the Doctor's collection to the Society. This valuable gift numbered 12,012 Coleoptera, 5,347 Diptera and enough of the remaining orders to make a grand total of 18,873 species . . ." CRESSON. p. 37–8.

The publication of the Proceedings of the Society was begun in 1861. In 1867, the name of the Society was changed to that of the present "American Entomological Society." An excellent history of the first half-century, is noted in the Bibliography, below, 1909: CRESSON.

The officers during the period 1859–65, were as follows: President: 1859–60, J. L. Le Conte; 1861–62, George Newman; 1863–65, J. H. B. Bland; Vice-president: James Ridings, 1859; 1860, George Newman; 1861–62, J. H. B. Bland; 1863–64, Charles F. Parker; 1865–68, William S. Pine; Treasurer: 1859–62, Charles Wilt; 1863–73, J. W. McAllister; Corresponding secretary: 1859–74, E. T. Cresson.

Below are given the dates of the publication of the PROCEEDINGS and the PAPERS ON NATURAL HISTORY contained in the volumes.

On October 30, 1865, the Society issued the first number of the "Practical Entomologist," published monthly for free distribution, edited by Messrs Cresson, McAllister, Walsh and Grote. Only two volumes were published.

Bibliography

1861 ENTOMOLOGICAL SOCIETY OF PHILADELPHIA. Proceedings of the . . . for 1861–67. Phila. Printed for the Society, 1861–67. 6 v.

v. 1–5 contains the Proceedings for 1859–65. See below for Dates of Publication.

1862 ————. Charter and by-laws. Phila. 1862. 11 p.

1865 ————. Memoir of Thomas B. Wilson . . . Phila. 1865. 38 p.

Contains a history of the founding of the Society and Wilson's important contributions to it.

————. The Practical entomologist. Phila. [1865–67.] 2 v. 4.°

1868 AMERICAN ENTOMOLOGICAL SOCIETY. Transactions . . . for 1868–date. Phila. 1868–date. v. 1–date.

1893 ASHTON, Thomas B. On the early history of the Entomological Society of Philadelphia (now the American Entomological Society). (In Ent. News. v. 4, p. 145–48. May, 1893)

1909 CRESSON, Ezra T[ownsend]. A history of the American Entomological Society, Philadelphia, 1859–1909, prepared by request of the Society . . . with an introduction by the Rev. Henry C. McCook. Phila. The Society, 1909. 60 p. 3 port.

p. 11–28, History of the Society; p. 37–41, The Collections, by Henry Skinner; p. 45–6, The Library, by E. T. Cresson, Jr.; p. 49–60, Officers, members, etc.

Proceedings (P)

Dates of Publication

v. 1, for March, 1861–Feb., 1863, pub. 1861–63. 4 + 381 p. 3 pl.

no. 1,	p. 1– 24,	March–May,	1861
no. 2,	p. 25– 39,	June–Aug.	
no. 3,	p. 41– 72,	Sept.–Oct.	
no. 4,	p. 73–102,	Nov.–Dec.	
no. 5,	p. 103– 44,	Jan.–Feb.	1862
no. 6,	p. 145– 88,	March–April.	
no. 7,	p. 189–224,	May–July.	
no. 8,	p. 225– 59,	Aug.–Sept.	
no. 9,	p. 261–311,	Oct.–Dec.	
no. 10,	p. 313– 81,	Jan.–Feb.	1863

v. 2, for March 1863–March, 1864, pub. 1863–64. 4 + 562 p. 11 pl.

no. 1,	p. 1– 60,	March–May,	1863
no. 2,	p. 61–162,	June–Sept.	
no. 3,	p. 163–366,	Oct.–Dec.	
no. 4,	p. 367–562,	Jan.–Mar.	1864

v. 3, for April, 1864–Nov. 1864, pub. 1864. 4 + 708 p. 6 pl.

p. 1– 42, pub. April, 1864

p. 43– 64, May
p. 65–196, June
p. 197– 99, July
p. 199–212, Aug.
p. 213–326, Sept.
p. 327– 43, Oct.
p. 343–436, Nov.
p. 437–708, Dec.

v. 4, for Jan., 1865–June, 1865, pub. 1865. 4 + 16 + 506 p. 3 pl.

p. 1–208, pub. Jan. 1865
p. 209– 14, Feb.
p. 215– 20, Mar.
p. 221–330, Apr.
p. 331– 84, May
p. 385–506, June

v. 5, for July, 1865–Dec., 1865, pub. 1865. 6 + 264 p. 4 pl.

p. 1– 26, pub. July, 1865
p. 27–132, Aug.
p. 133– 48, Sept.
p. 149–204, Nov.
p. 205– 64, Dec.

v. 6, for 1866–1867, pub. 1866–67. 4 + 16 + 454 p. 5 pl.

Papers on Natural History

1861 CRESSON, E. T. Catalogue of the Cicindelidae of North America. P. v. 1, p. 7–20. Rd April 8.

UHLER, P. R. Descriptions of a few new species of Hemiptera; and observations upon some already described. P. v. 1, p. 21–4. Rd April 8.

HORN, G. H. Notes on the habits of some coleopterous larvae and pupae. P. v. 1, p. 28–30, 43–4. Rd June 10 & Aug. 12.

CRESSON, E. T. Catalogue of the described species of Tenthredinidae, and Uroceridae, inhabiting North America. P. v. 1, p. 33–9. Rd July 8.

EVETT, [ ]. On the capture of some coleopterous insects. . . P. v. 1, p. 31–2, 217. Rd Aug. 12, 1861 & June 9, 1862.

CRESSON, E. T. Capture of Strategus anteus and Tetraopes canteriator. P. v. 1, p. 32. Rd Aug. 12.

ASHTON, T. B. On Podura nivicola, Fitch. P. v. 1, p. 32. Rd Aug. 12. Originally presented Apr. 25, 1859. See also, p. 141–42: Observations on Aphis avenae Fabr. Rd Feb. 10, 1862.

*OSTEN-SACKEN, R. von. On the Cynipidae of the North American oaks and their galls. P. v. 1, p. 47–72. Rd Sept. 9.
Additions & corrections rd Aug. 11, 1862 (q.v.)

CLEMENS, Brackenridge. Micro-lepidopterous larvae: notes on a few species, the imagos of which are probably undescribed. P. v. 1, p. 75–87. Rd Oct. 13.

BLAND, J. H. B. Catalogue of the Longicorn Coleoptera in the vicinity of Philadelphia. P. v. 1, p. 93–101. Rd Nov. 11.

*OSTEN-SACKEN, R. von. Description of some larvae of North American Coleoptera. P. v. 1, p. 105–30, 1 pl. Rd Dec. 9.

CLEMENS, Brackenridge. New American Micro-lepidoptera. P. v. 1, p. 131–37. Rd Dec. 9.

BUCKLEY, S. B. The Tarantula (Mygale Hentzii, Girard) and its destroyer (Pompilus formosus, Say). P. v. 1, p. 138–39. Rd Dec. 9.

1862 NORTON, Edward. Notice of several new species of Tenthredinidae. P. v. 1, p. 143–44. Rd Jan. 13.

CLEMENS, Brackenridge. North American Microlepidoptera. P. v. 1, p. 147–51. Rd Feb. 10.

OSTEN-SACKEN, R. Characters of the larvae of Mycetophilidae. P. v. 1, p. 151–72, pl. [22 fig.] Rd Feb. 10.

CLEMENS, Brackenridge. Synopsis of families of Heterocera. P. v. 1, p. 173–81. Rd Feb. 10.

EDWARDS, W. H. Notes upon Grapta comma, Harris, and Grapta faunus, Edwards (C. album of some authors). P. v. 1, p. 182–84. Rd Feb. 10.

HORN, G. H. Description of some new North American Coleoptera. P. v. 1, p. 187–88. Rd Mar. 10.

FAY, H. T. On winter collecting. P. v. 1, p. 194–98. Rd Mar. 10.

NORTON, Edward. A description of several new Hymenoptera. P. v. 1, p. 198–200. Rd April 14.

————. On the synonyms of Cimbex Americana. P. v. 1, p. 201–2. Rd April 14.

BUCKLEY, S. B. Description of two new species of Termites from Texas. P. v. 1, p. 212–15. Rd April 14.

CRESSON, E. T. A catalogue of the described species of several families of Hymenoptera inhabiting North America. P. v. 1, p. 202–11, 227–38, 316–44. Rd April 14 & July 14.

GROTE, A. R. Additions to the catalogue of U. S. Lepidoptera. P. v. 1, p. 218–19, 345–47. Rd May 12 & Dec. 8.

EDWARDS, W. H. Descriptions of certain species of diurnal Lepidoptera found within the United States, figured in Doubleday's "Genera" but undescribed. P. v. 1, p. 221–24. Rd June 9.

See also his papers rd before Phila. Acad. Nat. Sc. (1812), July 9, 1861 & Feb. 4, 1862.

*OSTEN-SACKEN, R. Additions and corrections to the paper entitled: "On the Cynipidae of the North American oaks and their galls." P. v. 1, p. 241–59. Rd Aug. 11.

Previous part rd Sept. 9, 1861 (q.v.)

BLAND, J. H. B. Descriptions of several supposed new species of Cerambycidae in the collection of the . . . Society, with observations on some already described. P. v. 1, p. 267–76, illus. Rd Oct. 13.
See also p. 263.

RIDINGS, James. Description of a supposed new species of Aegeridae from Virginia, and observations upon Papilo daunus Boisd. P. v. 1, p. 277–78, illus. Rd Oct. 13.

LINTNER, J. A. Metamorphoses of Ceratomia quadricornis, Harris. P. v. 1, p. 286–93. Rd Nov. 10.

WALSH, B. D. On the genera of Aphidae found in the United States. P. v. 1, p. 294–311, illus. Rd Nov. 10.

1863 BLAND, J. H. B. Descriptions of a few supposed new species of North American Coleoptera. P. v. 1, p. 353–56. Rd Jan. 12.

NORTON, Edward. Catalogue of our species of Ophion, Anomalon, Paniscus and Campoplex. P. v. 1, p. 357–68. Rd Jan. 12.

OSTEN-SACKEN, R. Lasioptera reared from a gall on the golden-rod. P. v. 1, p. 368–70. Rd Jan. 12.

*COUPER, William. Importance of insect architecture to entomologists. P. v. 1, p. 370–72. Rd Jan. 12.

————. Remarks on tent-building ants. P. v. 1, p. 373–74. Rd Jan. 12.

WALSH, B. D. Observations on Papilio glaucus and P. turnus. P. v. 1, p. 349–52. Rd Feb. 9.

CLEMENS, Brackenridge. American Micro-lepidoptera. P. v. 2, p. 4–14. Rd Feb. 9.

EDWARDS, W. H. Description of certain species of diurnal Lepidoptera found within the limits of the United States and British America; no. 1. P. v. 2, p. 14–22. Rd Feb. 9.
Also rd before Phil. Acad. Nat. Sc. (1812), July 9, 1861 & Feb. 4, 1862 (q.v.)

*SAUNDERS, W[illiam]. On some hitherto undescribed lepidopterous larvae. P. v. 2, p. 28–30. Rd Mar. 9.

GROTE, A. R. Additions to the catalogue of U. S. Lepidoptera; no. 3. P. v. 2, p. 30–2. Rd Mar. 9.

OSTEN-SACKEN, R. Contributions to the natural history of the Cynipidae of the United States and of their galls: no. 3. P. v. 2, p. 33–49. Rd Mar. 9.

GROTE, A. R. A revision of the species of Cymatophorina, found in the United States and British America, with description of new species. P. v. 2, p. 54–8. Rd April 13.

SAUNDERS, William. Descriptions of two new species of Arctiidae. P. v. 2, p. 59–60. Rd April 13.
A. celia & decorata.

GROTE, A. R. Additions to the catalogue of U. S. Lepidoptera; no. 4. P. v. 2, p. 64–8. Rd May 11.

CRESSON, E. T. Description of a new species of Masaris [vespoides] from the Rocky Mountains. P. v. 2, p. 69–74, 1 pl. Rd May 11.

EDWARDS, W. H. Description of certain species of diurnal Lepidoptera found within the limits of the United States and British America; no. 2. P. v. 2, p. 78–82. Rd June 8.
No. 1 rd Feb., 9, 1863 (q.v.)

CRESSON, E. T. List of the North American species of Bombus and Apathus. P. v. 2, p. 83–116. Rd June 8.
See also p. 164–66.

CLEMENS, Brackenridge. American Micro-lepidoptera. P. v. 2, p. 119–29. Rd July 13.

*STAINTON, H. T. Observations on American Tineina. P. v. 2, p. 130–32. Rd July 13.

REAKIRT, Tryon. Notes on Central American Lepidoptera, with descriptions of new species; no. 1. P. v. 2, p. 135–42. Rd Aug. 10.
Pt. 2 rd Nov. 9, 1863 (q.v.)

WEIDEMEYER, J. W. Catalogue of North American butterflies. P. v. 2, p. 143–54. Rd Aug. 10.

UHLER, P. R. Hemipterological contributions; no. 1. P. v. 2, p. 155–62. Rd Aug. 10.
No. 2 rd Nov. 9, 1863 (q.v.)

*HAGEN, Hermann, and WALSH, B. D. Observations on certain North American Neuroptera, by H. Hagen, of Koenigsberg, Prussia; translated from the original French MS, and published by permission of the author, with notes and descriptions of about twenty new North American species of Pseudoneuroptera. P. v. 2, p. 167–272. Rd Aug. 10.
Hagen's article, p. 167–82.

GROTE, A. R. Additions to the catalogue of U. S. Lepidoptera; no. 5. P. v. 2, p. 273–76. Rd Sept. 14.

CRESSON, E. T. On Bombus Pennsylvanicus, De Geer, B. separatus and B. Virginicus. P. v. 2, p. 164–66. Rd Oct. 12.

BLAKE, C. A. Description of a supposed new genus and species of Saturniidae from the Rocky Mountains. P. v. 2, p. 279. Rd Oct. 12.

CRESSON, E. T. On the North American species of the genus Nomada. P. v. 2, p. 280–312. Rd Oct. 12.

BLAND, J. H. B. Descriptions of a few supposed new species of North American Coleoptera; no. 2. P. v. 2, p. 319–23. Rd Nov. 9.

BASSETT, H. F. Descriptions of several supposed new species of Cynips, with remarks on the formation of certain galls. P. v. 2, p. 323–33. Rd Nov. 9.

GROTE, A. R. Descriptions of North American Lepidoptera; no. 1. P. v. 2, p. 334–44. Rd Nov. 9.

REAKIRT, Tryon. Notes on Central American Lepidoptera, with descriptions of new species; no. 2. P. v. 2, p. 345–60. Rd Nov. 9.
Pt. 1 rd Aug. 10, 1863 (q.v.)

UHLER, P. R. Hemipterological contributions; no. 2. P. v. 2, p. 361–66. Rd Nov. 9.
Pt. 1 rd Aug. 10, 1863 (q.v.)

1864 CRESSON, E. T. Descriptions of several new species of North American Apidae. P. v. 3, p. 38–43. Rd Jan. 11.

REAKIRT, Tryon. Contributions towards a monograph of the genus Crocota. P. v. 2, p. 371–73. Rd Jan. 11.

CRESSON, E. T. On the North American species of several genera of Apidae. P. v. 2, p. 373–411. Rd Jan. 11.

CLEMENS, Brackenridge. North American Micro-lepidoptera. P. v. 2, p. 415–30. Rd Feb. 8.

GROTE, A. R. Description of a new species of North American Gortyna [cerussata]. P. v. 2, p. 431–32. Rd Feb. 8.

————. Descriptions of North American Lepidoptera; no. 2. P. v. 2, p. 433–41. Rd Feb. 8.

————. Description of a new species of North American Papilio (P. Calverleyi). P. v. 2, p. 441–42. Rd Feb. 8.

WALSH, B. D. On dimorphism in the hymenopterous genus Cynips; with an appendix, containing hints for a new classification of Cynipidae and a list of Cynipidae, including descriptions of several new species, inhabiting the oak-galls of Illinois. P. v. 2, p. 443–500, illus. Rd Feb. 8.

EDWARDS, W. H. Descriptions of certain species of diurnal Lepidoptera found within the limits of the United States and British America; no. 3. P. v. 2, p. 501–7. Rd Feb. 8.
No. 2 rd June 8, 1863 (q.v.)

————. Descriptions of certain species of Catocala found within the United States. P. v. 2, p. 507–12. Rd Feb. 8.

WEIDEMEYER, J. W. Catalogue of North American butterflies. P. v. 2, p. 513–42. Rd Feb. 8.

UHLER, P. R. Orthopterological contributions. P. v. 2, p. 543–55. Rd Feb. 8.

GROTE, A. R. Description of a new genus and species of North American Noctuina. P. v. 3, p. 2–4. Rd Mar. 14.

NORTON, Edward. Notes on the Tenthredinidae, with descriptions of new species. P. v. 3, p. 5–16. Rd Mar. 14.

CRESSON, E. T. On the North American species of the genus Osmia. P. v. 3, p. 17–38. Rd Mar. 14.

OSTEN-SACKEN, R. Description of several new North American Ctenophorae. P. v. 3, p. 45–9. Rd April 11.

LINTNER, J. A. Notes on some of the diurnal Lepidoptera of the state of New York, with descriptions of their larvae and Chrysalides. P. v. 3, p. 50–64. Rd April 11.

BLAND, J. H. B. Descriptions of several new species of North American Coleoptera. P. v. 3, p. 65–72. Rd May 9.

GROTE, A. R. Descriptions of North American Lepidoptera; no. 3. P. v. 3, p. 73–92. Rd May 9.
No. 2 rd Feb. 8, 1864 (q.v.)

————. List of a collection of Lepidoptera heterocera taken near Williamstown, Mass. P. v. 3, p. 92–6. Rd May 9.

PACKARD, A. S. Jr. Synopsis of the Bombycidae of the United States. P. v. 3, p. 97–130. Rd May 9.

CRESSON, E. T. Descriptions of North American Hymenoptera in the collection of the . . . Society. P. v. 3, p. 131–96, 257–321. Rd May 9 & Sept. 12.

WALSH, B. D. On certain entomological speculations of the New England school of naturalists. P. v. 3, p. 207–49. Rd Aug. 8.

REAKIRT, Tryon. Descriptions of three new species of Limacoides. P. v. 3, p. 250–52. Rd Aug. 8.

WALSH, B. D. On the pupa of ephemerinous genus Baetisca Walsh. P. v. 3, p. 200–6. Rd Aug. 8.

BLAND, J. H. B. Descriptions of new North American Coleoptera. P. v. 3, p. 253–56. Rd Sept. 12.

GROTE, A. R. Descriptions of North American Lepidoptera, no. 4. P. v. 3, p. 322–27. Rd Sept. 12.

KIRKPATRICK, John. List of diurnal Lepidoptera found in the vicinity of Cleveland, Ohio. P. v. 3, p. 328–30. Rd Oct. 10.

PACKARD, A. S. Jr. Synopsis of the Bombycidae of the United States; pt. 2. P. v. 3, p. 331–96. Rd Oct. 10.
Pt. 1 rd May 9, 1864 (q.v.)

CRESSON, E. T. Descriptions of two new genera of North American Ichneumonidae. P. v. 3, p. 397–402, illus. Rd Oct. 10.

WALSH, B. D. On phytophagic varieties and phytophagic species. P. v. 3, p. 403–30. Rd Oct. 10.

————. On the insects, coleopterous, hymenopterous and dipterous, inhabiting the galls of certain species of willow; pt. 1, Diptera. P. v. 3, p. 543–644. Rd Oct. 10.

EDWARDS, W. H. Description of the female of Argynnis Diana. P. v. 3, p. 431–34. Rd Oct. 10.

————. Notes on the Argynnides of California. P. v. 3, p. 434–36. Rd Oct. 10.

*BATES, H. W. Notes upon the variation of sexes in Argynnis Diana. P. v. 4, p. 204–7. Com. Oct. 20.

TRYON, REAKIRT. Notes upon the exotic Lepidoptera, chiefly from the Philippine Islands, with descriptions of some new species. P. v. 3, p. 443–504. Rd Nov. 14.

CLEMENS, Brackenridge. North American Micro-Lepidoptera. P. v. 3, p. 505–20. Rd Nov. 14.

GROTE, A. R. Descriptions of North American Lepidoptera; no. 5. P. v. 3, p. 521–35. Rd Nov. 14.

————. Notes on certain species of North American Lepidoptera. P. v. 3, p. 535–42. Rd Nov. 14.

LINTNER, J. A. Notes on some Sphingidae of the state of New York, with descriptions of their larvae and pupae. P. v. 3, p. 645–72. Rd Nov. 14.

CRESSON, E. T. Descriptions of two species (new) of Masaris. P. v. 3, p. 672–78. Rd Nov. 14.

BASSETT, H. F. Descriptions of several new species of Cynips and a new species of Diastrophus. P. v. 3, p. 679–91. Rd Nov. 14.

CRESSON, E. T. On the Hymenoptera of Cuba. P. v. 4, p. 1–200, illus. Com. Nov. 14.

EDWARDS, W. H. Description of certain species of Diurnal Lepidoptera found within the limits of the United States and British America; no. 4. P. v. 4, p. 201–4. Com. Dec. 12.

1865 GROTE, A. R. On the synonomy of Parathyris angelica, G. P. v. 4, p. 207. Com. Jan. 9.

SHIMER, Henry. Description of the imago and larva of a new species of Chrysopa. P. v. 4, p. 208–12. Com. Jan. 9.

GROTE, A. R. Descriptions of North American Lepidoptera; no. 6. P. v. 4, p. 315–30. Com. Jan. 9.

*BETHUNE, C. J. S. Descriptions of three new species of Canadian nocturnal Lepidoptera. P. v. 4, p. 213–15. Com. Feb. 13.

REAKIRT, Tryon. Observations upon some American Pierinae. P. v. 4, p. 216–22. Com. Feb. 13.

GROTE, A. R., and ROBINSON, C. T. Description of a new species of Citheronia and remarks on Anisota rubicunda. P. v. 4, p. 222–23. Com. Mar. 13.

OSTEN-SACKEN, R. Description of some new genera and species of North American Limnobina; pt. 1. P. v. 4, p. 224–42. Com. Mar. 13.

CRESSON, E. T. Catalogue of Hymenoptera in the collection of the . . . Society . . . from Colorado Territory. P. v. 4, p. 242–313, 426–88. Com. Mar. 13.

OSTEN-SACKEN, R. Contributions to the natural history of the Cynipidae of the United States and of their galls; article 4th. P. v. 4, p. 331–80. Com. April 10.

BLAND, J. H. B. Descriptions of several new species of North American Coleoptera. P. v. 4, p. 381–84. Com. April 10.

CRESSON, E. T. Descriptions of some new species of Mutilla, from California. P. v. 4, p. 385–90. Com. May 8.

EDWARDS, W. H. Notes upon Papilio asterias and Saturnia promethea, hermaphrodites. P. v. 4, p. 390. Com. May 8.

BLAND, J. H. B. Compiled descriptions of North American Staphylinidae. P. v. 4, p. 391–425. Com. May 8.

GROTE, A. R., and ROBINSON, C. T. Lepidopterological notes and descriptions; no. 1. P. v. 4, p. 489–96. Com. May 8.

SCUDDER, S. H. Revision of the hitherto known species of the genus Chionobas in North America. P. v. 5, p. 1–28. Com. June 12.

BRENDEL, Emil. On some new species of Pselaphidae. P. v. 5, p. 28–32. Com. July 10.

CRESSON, E. T. Monograph of the Philanthidae of North America. P. v. 5, p. 85–132. Com. July 10.

CLEMENS, Brackenridge. North American Micro-Lepidoptera. P. v. 5, p. 133–47, illus. Com. Aug. 14.

EDWARDS, W. H. Description of a new species of Limenitis. P. v. 5, p. 148. Com. Aug. 14.

GROTE, A. R., and ROBINSON, C. T. A synonymical catalogue of North American Sphingidae, with notes and descriptions. P. v. 5, p. 149–93. Com. Oct. 9.

————. Lepidopterological notes and descriptions; no. 2. P. v. 6, p. 1–30. Rd Oct. 9.

WALSH, B. D. On phytophagic varieties and phytophagic species, with remarks on the unity of coloration in insects. P. v. 5, p. 194–216. Com. Nov. 13.

REAKIRT, Tryon. Descriptions of some new species of Danainae. P. v. 5, p. 217–23. Com. Nov. 13.

————. Descriptions of some new species of Eresia. P. v. 5, p. 224–27. Com. Nov. 13.

BRENDEL, Emil. New species and corrections in the family Pselaphidae. P. v. 5, p. 255–60. Com. Nov. 13.

PACKARD, A. S., Jr. Revision of the fossorial Hymenoptera of North America; pt. 1, Crabronidae and Nyssonidae. P. v. 6, p. 39–115. Com. Nov. 13.

BLAKE, C. A. Description of a new species of Cuban Lepidoptera. P. v. 4, p. 313–14.

Papilio Grotei.

GROTE, A. R. Notes on Cuban Sphingidae. P. v. 5, p. 33–84.

————. Notes on the Bombycidae of Cuba. P. v. 5, p. 227–55.

MACOMB EXPEDITION IN NEW MEXICO, UTAH & COLORADO (1859)

History

Early in 1859, Capt. J. N. Macomb was ordered to make explorations of the country in New Mexico, Utah and Colorado, covered in an expedition from Santa Fe, New Mexico, to the junction of the Grand and Green Rivers of the Colorado. The work was carried on during the summer of 1859.

Macomb was accompanied by J. S. Newberry as the naturalist and the geologist of the expedition. Macomb made brief reports Nov. 11, 1860, and Nov. 27, 1861, but the intervention of the Civil War delayed the final appearance of the official Report until 1876.

Newberry's Report was ready for printing May 1, 1860, but decided to delay its printing until the completion of his geological map. The outbreak of the War postponed the appearance of this Report until 1876.

The Expedition was also known as the San Juan Exploring Expedition. See also MERRILL, (1), p. 478–80, for a criticism of Newberry's work, and the map, showing the route followed by the Expedition. F. B. Meek described the fossils collected. See also MERRILL. First 100 yrs Amer. Geol. 1924. p. 362–64.

Bibliography

1876 MACOMB, J[ohn] N[avarre]. . . . Report of the exploring expedition from Santa Fe, New Mexico, to the junction of the Grand and Green Rivers of the Great Colorado of the West, in 1859, under the command of Capt. J. N. Macomb; with a geological report by J. S. NEWBERRY. Washington, Gov't printing office, 1876. 152 p. illus. 22 pl. fold. map. 4°. (U. S. War Dept. Engineer Dept.)

CONTENTS:

p. 5– 8 MACOMB, J. N. Report, made Nov. 11, 1860.
p. 8 ————. Report, made Nov. 27, 1861.
p. 9–118 NEWBERRY, J. S. Geological report. 8 pl. [48 fig.] Report rendered June 1, 1875. Ready in May, 1860.
p. 119– 33 MEEK, F. B. Descriptions of the Cretaceous fossils collected in the San Juan Exploring Expedition.
p. 135– 48 NEWBERRY, J. S. Descriptions of the Carboniferous and Triassic fossils collected. . .

Paper in Scientific Journal

1860 NEWBERRY, J. S. Notes on the ancient vegetation of North America. Written Oct. 15, 1859.
In Amer. J. Sc. (1818), v. 79 (ser. 2, v. 29), p. 208–18. March, 1860.

MINNESOTA GEOLOGICAL SURVEYS (1859)

History

In 1859, the first legislature of Minnesota authorized the reprinting of Prof. Edward Daniels' "Reports on the geology of the state of Wisconsin" of 1854 and 1858; since the state had theretofore been part of Wisconsin. These were reprinted in 1860 in his "Sketch of the lead region."

By an Act approved March 10, 1860, the legislature authorized a "Report on the geology of the state, and the submission of a plan for a thorough geological survey." Charles L. Anderson, with Thomas Clark as his assistant, was appointed to make this Report, which was rendered in 1861.

In 1864 Augustus H. Hanchett was appointed state geologist, with Thomas Clark as his assistant. Hanchett's "Report" was published in 1865.

In 1865, H. H. Eames succeeded Hanchett and presented two brief reports in 1866. In 1865 N. C. D. Taylor was directed to explore the mineral lands of the valley of the St. Croix. His "Report" was presented in 1866.

See also HAYES, p. 80–2, (U. S. Geol. Surv. Bull. no. 465), for brief history of the state geological surveys. See also MERRILL, (1), p. 530. See also MERRILL. First 100 yrs Amer. Geol. 1924. p. 429.

See below under the BIBLIOGRAPHY, the histories by Merrill (1920), and those by N. H. Winchell. About $4,000 was expended on the various surveys prior to 1865.

Bibliography

1873 WINCHELL, Newton Horace. Historical sketch and list of publications relating to the geology and natural history of Minnesota. Minneapolis, 1873. (In Minn. Geol. Surv. First. Ann. Rept. 1872. p. 22–39)
Citation refers to 2d ed. of Rept. 1884.

1874 ————. Geological notes from early explorers in the Minnesota Valley. (In Minn. Acad. Nat. Sc. Bull. v. 1, p. 89–101, 153–56. 1874–75)

1882 ————. Bibliography of the mineralogy of Minnesota. (In Minn. Acad. Nat. Sc. Bull. v. 2, p. 390–97. Oct. 1882)

1884 ————. Historical sketch of explorations and surveys in Minnesota. (In Minn. Geol. & Nat. Hist. Surv. Final Rept.: 1872–82. 1884. v. 1, p. 1–110)

1889 ————. History of geological surveys in Minnesota. St. Paul, 1889. 37 p. (In Minn. Geol. & Nat. Hist. Surv. Bull. no. 1)

1894 ————. A sketch of geological investigations in Minnesota. (In Jour. Geol. v. 2, no. 7, p. 692–707. Oct.–Nov. 1894)

1915 GREGORY, Winifred. Bibliography of Minnesota mining and geology. Minneapolis, 1915. 157 p. (In Minn. Univ. School Mines. Exper. Station. Bull. no. 4)

For contents, see under Annot. Bib. (in v. I)

1920 MERRILL, George Perkins, ed. Minnesota Geological Surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 239–55, port.)

History of surveys to 1885.

Reports

1860 DANIELS, Edward. Sketch of the lead region. St. Paul, 1860. 34 p.

1861 ANDERSON, C. L., and CLARK. THOMAS. Report on the geology of the state of Minnesota. St. Paul, 1861. 26 p.

Reports made Jan. 25, 1861.

1865 HANCHETT, Augustus H., and CLARK, Thomas. Report of the state geologist, together with the physical geography, meteorology and botany of the northeastern district of Minnesota, by Thomas CLARK. St. Paul, 1865. 82 p.

Preface, dated Nov. 13, 1864. Instructions given July 12, 1864.

CONTENTS:

HANCHETT, A. H. Report. p. 1–10.
CLARK, Thomas. Physical geography.
————. Meteorology of the district.
————. A list of the leading plants and trees of the district. p. 73–82.

1866 EAMES, H. H. Geological reconnaissance of the northern, middle and other counties of Minnesota. St. Paul, 1866. 58 p.

Another ed. 1867.

————. Report of the state geologist on the metalliferous region bordering on Lake Superior. St. Paul, 1866. 23 p.
TAYLOR, N. C. D., and HALL, James. On the copper district of Kettle River incorporating Mr. James Hall's estimate of the copper prospects of that district. St. Paul, 1866. 2 p. (In Exec. Doc.)
WHITTLESEY, Charles. Report of explorations in the mineral regions of Minnesota, during the years 1848, 1859 and 1864. Cleveland, 1866. 54 p.

MUSEUM OF COMPARATIVE ZOOLOGY, HARVARD UNIVERSITY, CAMBRIDGE, MASS. (1859)

History

"Since the connection of Prof. Agassiz with the scientific department of Harvard University, he has been actively devoted as is well known, to collecting zoological specimens and laying the foundation of a great museum. The collections already made by him or through his agency and in great part at his own expense, are very large. The interest felt in this movement has been general throughout the country, and has recently taken a fresh start which is destined to lead to the most important results.

"The late Francis C. Gray of Boston—a gentleman extensively known for the depth and variety of his knowledge in many departments of literature, and for his liberal spirit in promoting schemes for the public good, was strongly attached to the study of the natural sciences, during the last years of his life, and was in habits of intimate and critical association with Professor Agassiz.

"This distinguished gentleman died two years ago. He left by will . . . to Harvard College . . . the further sum of fifty thousand dollars (50,000), the income to be applied to establishing and maintaining a MUSEUM OF COMPARATIVE ZOOLOGY, at Harvard College, not to be appended to any other department, but to be under the charge of an independent faculty, responsible only to the Corporation and Overseers. No part of said income is to be expended for real estate or the payment of salaries . . .

". . . The Faculty shall consist of Rev. Dr. James Walker; Prof. Louis Agassiz, Director of the Museum; John Bigelow; Prof. O. W. Holmes; and Jeffries Wyman . . ." From AMER. J. SC. v. 77 (ser. 2, v. 27), p. 295–99. March, 1859.

"The Museum had its origin in the zoological collections accumulated by Professor Agassiz, which were purchased in 1852 for

Harvard College at a cost of $12,000, raised by private subscriptions. In 1858, the Corporation of Harvard University made a small appropriation (monthly allowance) for the care of the collection. In 1859, Professor Agassiz obtained a grant from the legislature of Massachusetts of $100,000; at the same time, $71,125 was raised by private subscription for the Museum.

"The Museum was incorporated in 1859, and received through Mr Gray the sum of $50,000 left to him by F. C. Gray . . . Construction of building was begun in 1859 . . . Money was paid in three installments in 1861, 1863 and 1864." P.M.REA. Buffalo Soc. Nat. Sc. Bull. v. 10, p. 117–18. 1910.

Beginning with 1859, Annual Reports of the Trustees and the Director, were published. In 1863, the Bulletin began to be published. In 1865, the first volume of Memoirs was issued.

Between 1859 and 1866, Agassiz was assisted in the curatorships by P. R. Uhler, N. S. Shaler, Alexander Agassiz, J. G. Anthony, J. A. Allen, Louis Agassiz, A. S. Bickmore, A. S. Packard, Jr., F. W. Putnam, A. E. Verrill, S. H. Scudder, N. B. Shurtleff, William Gray.

Bibliography

1859 MUSEUM OF COMPARATIVE ZOOLOGY, Harvard College, Cambridge, Mass. Charter of the . . . with a list of the Trustees, the By-laws, and other papers. Boston, 1859. 32 p.

1861 ————. Annual report of the Trustees, together with the Report of the Director . . . 1859–date. Cambridge, Mass., 1861–date.
Published as state documents during the early years. See below for bibliographical details.

1863 ————. Bulletin of the . . . Cambridge, Mass., 1863–date. v. 1–date.

1865 ————. Memoirs of the . . . Cambridge, Mass., 1865–date. v. 1–date. Quarto.

1871 ————. An account of the organization and progress of the Museum of Comparative Zoology at Harvard College in Cambridge, Mass. Cambridge, Mass., 1871. 32 p. 5 pl.
Another ed., 1873.

1902 AGASSIZ, Alexander. Harvard University Museum: its origin and history; an address at the opening of the geological section of the Harvard University Museum. Cambridge, Mass., 1902. 18 p. 1 plan.

1913 MUSEUM OF COMPARATIVE ZOOLOGY, Harvard College, Cambridge, Mass. Publications of the . . . Cambridge, Mass., 1913. 32 + 4 p.

Reports

Early ones published as Mass. state documents.

For 1859,	pub. 1861.	Sen. 37.	50	p.
1860,	1861.	Sen. 37.	50	p.
1861,	1862.	Sen. 53.	18	p.
1862,	1863.	Sen. 32.	41	p.
1863,	1864.	Sen. 22.	56	p.
1864,	1865.	Sen. 96.	51	p.
1865,	1866.	Sen. 67.	32	p.

Papers on Natural History

1863 PUTNAM, F. W. List of the fishes sent by the Museum to different institutions in exchange for other specimens, with other annotations. Bull. v. 1, no. 1, p. 2–16. Pub. Apr. 28.

AGASSIZ, Alexander. List of the Echinoderms sent to different institutions in exchange for other specimens, with annotations. Bull. v. 1, no. 2, p. 17–28. Pub. Aug. 15.

1864 VERRILL, A. E. List of the Polyps and corals sent by the Museum of Comparative Zoology to other institutions in exchange, with other annotations. Bull. v. 1, no. 3, p. 29–60. Pub. in Jan.

1865 LYMAN, Theodore. Illustrated catalogue of the Museum of Comparative Zoology, at Harvard College. . . no. 1: Ophiuridae and Astrophytidae. M. v. 1, 200 p. 2 pl. 19 illus.
Written Oct. 1864. Rev. in Amer. J. Sc. ser. 2, v. 40, p. 283–84. Sept. 1865.

SHALER, N. S. List of the Brachiopoda from the Island of Anticosti, sent by the Museum of Comparative Zoology to different institutions in exchange for other specimens, with annotations. Bull. v. 1, no. 4, p. 61–70. Pub. in June.

AGASSIZ, Alexander. Illustrated catalogue of the Museum of Comparative Zoology at Harvard College: no. 2: North America; Acalephae. M. v. 1, 234 p. 360 fig.
Written Feb. 1865. Rev. in Amer. J. Sc. ser. 2, v. 42, p. 132–33. July, 1866.

HYATT, Alpheus, Jr. Remarks on the Beatriceae, a new division of Mollusca . . . in a new expedition under the auspices of the Museum of Comparative Zoology. . . .
In Amer. J. Sc. (1818), v. 89 (ser. 2, v. 39), p. 261–66. May, 1865.

RAYNOLDS' EXPLORATION OF THE YELLOWSTONE (1859)

History

In 1859, Capt. W. F. Raynolds was instructed as follows: "Under clauses of the military appropriation acts, providing for surveys for military defences, geographical explorations and reconnaissances for military purposes, I am directed by the Secretary of War to instruct you to organize an expedition for the exploration of the region of country through which flow the principal tributaries of the Yellowstone River, and of the mountains in which they, and the Gallatin, and Madison forks of the Missouri have their source."

"The objects of this expedition are to ascertain, as far as practicable, everything relating to the numbers, habits, and disposition of the Indians inhabiting the country, its agricultural and mineralogical resources . . ."

The sum of $60,000 and the employment of eight assistants was authorized. The expedition left St. Louis, May 28, 1859, and remained in the field until October 4, 1860. F. V. Hayden was selected as surgeon and naturalist of the party. M. C. Hines was assistant naturalist; J. H. Snowden, Lt. H. E. Maynadier, John Mullins and J. D. Hutton acted in various capacities.

The publication of Raynolds' "Final Report" was delayed because of his protracted illness and his service during the Civil War. It was submitted July 1, 1867, and published in 1868.

"The progress of this Report has been suspended for a time, the commanding officer being on duty as topographical engineer of Gen. Rosencrantz's staff. A map of the region explored has been prepared, and the astronomical, barometrical, and meteorological observations, with profiles, etc., are completed.

"The following reports are nearly ready: Reports on the geology of the district examined, by F. V. Hayden; Palaeontology, by Prof. Leidy, J. S. Newberry, and Messrs Meek and Hayden; Zoology: Mammals, by F. V. Hayden; Birds, by Elliott Coues; Fishes, by Theodore Gill; Botany, by Messrs Engelmann, Dewey, Sullivant, and Tuckerman; also a Report on the Ethnography and Philology of the Indian Tribes of the Missouri Valley, by F. V. Hayden (finished)." F. V. HAYDEN. Amer. J. Sc. v. 84, (ser. 2, v. 34). p. 100. July, 1862.

For critical notes on the geological contents of the report, see MERRILL, (1), p. 589–91. For papers published before the appearance of the official report, see below, PAPERS IN SOCIETY TRANSACTIONS. See also MERRILL. First 100 yrs Amer. Geol. 1924. p. 504–6.

Hayden's Reports were published prior to the final report, and will be found below under PAPERS IN SOCIETY TRANSACTIONS.

Report

1868 RAYNOLDS, W[illiam] F[ranklin]. . . . Report on the exploration of the Yellowstone and the country drained by that river. Washington, 1868. 174 p. maps. (In U. S. 40th Cong., 2d sess., Sen. Ex. Doc. v. 2, no. 77) Serial no. 1317.

Report rendered July 1, 1867.

CONTENTS:

p. 2– 18 RAYNOLDS, W. F. Official report.

p. 18–127 ————. Journal. ch. 1–6.

p. 95–103 HINES, C. M. Geological notes by C. M. Hines, attached to H. E. Maynadier's command, 1859–60, from time of separation of the commands on Tullocks Creek to Captain Raynolds' trail near the head of the Crazy Woman's Fork of Powder River.

p. 127– 54 MAYNADIER, H. E. Report on the route between the Yellowstone and Platte River, 1859. Jan. 27, 1860.

p. 154– 61 SNOWDEN, J. H. Report on explorations from the Platte to the headwaters of the Sheyenne. Written Oct. 18, 1859.

p. 161– 70 MULLINS, John. Report on route from Fort Benton to Fort Union between the Missouri and Yellowstone Rivers. Written July 18, 1860.

p. 171– 74 HUTTON, J. D. Reconnaissance for a wagon road from the Platte to Powder River, 1860.

Papers in Society Transactions

1861 HAYDEN, F. V., and RAYNOLDS, W. F. Sketch of the geology of the country about the headwaters of the Missouri and Yellowstone Rivers by Dr F. V. Hayden . . . with introductory remarks (letter) by Capt. W. F. Raynolds. Written Jan. 20, 1861.

In Amer. J. Sc. (1818), v. 81 (ser. 2, v. 31), p. 229–45. Mar. 1861.

HAYDEN, F. V. On the geology and natural history of the Upper Missouri.

Rd before Amer. Phil. Soc. (1769), July 19, 1861. In its Trans. n. s. v. 12, art. 1, p. 1–218. illus. col. map. 1863.

For contents, see WARREN'S SIOUX EXPED. (1855), PAPERS IN SOCIETY TRANSACTIONS: 1861: Hayden.
Constitutes Report of progress for this expedition, WARREN'S EXPLOR. IN NEBRASKA & DACOTAH (1856), & WARREN'S SIOUX EXPED. (1855)

MEEK, F. B., and HAYDEN, F. V. Descriptions of new Lower Silurian (Primordial), Jurassic, Cretaceous, Tertiary fossils, collected in Nebraska by the Raynolds' . . . Expedition . . . with some remarks on the rocks from which they were obtained.
Rd before Phila. Acad. Nat. Sci. (1812), Dec. 3, 1861. In its Proc. v. 13, p. 415–47.

1862 HAYDEN, F. V. Contributions to the ethnography and philology of the Indian tribes of the Missouri Valley.
Rd before Amer. Phil. Soc. (1769), May 16, 1862. In its Trans. n. s. v. 12, p. 231–461, 2 pl. map.
Extract in Amer. J. Sc. v. 84 (ser. 2, v. 34), p. 57–66. July, 1862.

————. Some remarks in regard to the period of elevation of those ranges of the Rocky Mountains, near the sources of the Missouri River, and its tributaries.
Extract from Report of the Expedition.
In Amer. J. Sc. (1818), v. 83 (ser. 2, v. 33), p. 305–13. May, 1862.

1874 COUES, Elliott. . . Birds of the Northwest: a hand-book of the ornithology of the region drained by the Missouri River and its tributaries. Wash. Gov't print. off., 1874. xi + 791 p. (In U. S. Geol. Surv. Terr. F. V. Hayden, Geol.-in-charge. Misc. Pub. no. 3)
Rept. prepared in 1862 of collections made by Hayden with additions by Coues.

SPRINGFIELD (MASS.) MUSEUM OF NATURAL HISTORY (1859)

History

"In the autumn of 1859, Reuben A. Chapman, Daniel L. Harris, John L. King, and George A. Otis, Jr., four of Springfield's leading men, held several meetings at the house of Mr Harris to discuss the feasibility of establishing in Springfield (Mass.) a museum of natural history and curiosities, and the best mode of carrying out such a project, if it was a practicable one . . .

"It was agreed also that the illustration of the natural history of our immediate vicinity should be made a prominent object.

"As great efforts were being made at the time in behalf of the library association, it was thought best not to attempt to divide he public interest, but rather to unite the two enterprises . . .

"At a meeting of several gentlemen at the house of Daniel L. Harris, November, 1859,—

"1. Voted, that in our opinion, there ought to be in this city, a repository where specimens of natural history in all its departments, works of art, and valuable curiosities of every kind, can be collected and preserved, and the library association is a suitable body to establish such a repository.

"2. Voted, that it is especially desirable to obtain as far as may be practicable complete series of illustrations of the natural history of this county."

"Records give evidence of but one earlier attempt to make an exhibition of natural history specimens. This was in connection with the 'Springfield Institute' or 'Young Men's Institute' a society which was founded in 1843 for 'the betterment of its members.' This Society was absorbed by the City Library Association, which was formed November 27, 1857, and the remains of the mineralogical collections of the Springfield Institute formed a part of the first installment in the new museum . . .

"Besides a really surprising number of curiosities from distant countries, of Indian relics, and of objects of antiquarian interest, the museum possessed 6,000 natural history specimens . . . One of the most pleasing features of the museum was the ornithological cabinet of which Roger B. Hildreth was curator. Its rapid increase was mainly due to the zealous labors of Caleb W. Bennett and Lucius L. Hyde . . .

"Of the collection of shells, which included 750 species and was in charge of Dr George A. Otis, Jr., the Republican said:

" 'This department possesses numerous duplicates, and persons having collections of shells are invited to make exchanges . . .

" 'The Crustacea, insects, and radiates in the museum are foreign. The trustees earnestly desire that some of our young people should take charge of these departments . . .

" 'The Museum has a respectable cabinet of fossils, which have been carefully studied by Mr H. O. Marcy. A large proportion of them were collected by Mr Marcy in a geological tour in New York and belong to the Silurian system . . .

" 'The mineralogical cabinet in charge of Rev. F. Tiffany is in a very creditable condition. It has been carefully arranged on Dana's system, by the curator, assisted by Messrs Rice, Marcy and Fay . . . Mr B. W. Wright of Marquette, Illinois, has also made

handsome donations to this department, and has presented a highly interesting series of minerals from Lake Superior . . .'

"Another important donor of natural history material was Rev. H. J. Bruce, a missionary in India." Extracts from JOHNSON, p. 12–22 (see below)

Bibliography

1910 JOHNSON, Grace Pettis. . . . Historical sketch: Museum of Natural History; 1859–1909. Springfield, Mass., City library association, 1910. 58 p. illus. pl. port.

WILMINGTON INSTITUTE, WILMINGTON, DELAWARE (1859)

History

The Wilmington Institute was incorporated in January, 1859, having been the outgrowth of various previous Wilmington institutions formed for the promotion of the arts and sciences. While aiming principally to develop a library, it had a sub-committee on science, whose purpose was to encourage the interest in the natural sciences. Lectures on scientific subjects were given under its auspices. It took under its direction the publication of Tatnall's "Botanical Catalogue" (see below). It published annual reports. The presidents of the Institutes between 1859 and 1866 were Joshua T. Heald, William Canby, Samuel Biddle, William S. Hilles, George W. Bush, William R. Bullock, J. F. Vaughan and John H. Adams. It inherited the funds and books left over by the extinct Botanical Society of Wilmington (1842), q.v.

Bibliography

1859 WILMINGTON INSTITUTE. Reports of the president, treasurer and executive committee . . . of the . . . Wilmington, 1859–date.

Paper on Natural History

1860 TATNALL, Edward. Catalogue of the phaenogamous and filicoid plants of New Castle County, Delaware, arranged according to the natural system with the synonyms of modern authors. Wilmington, Del., 1860. 112 p.

See also Amer. J. Sc. ser. 2, v. 31, p. 130. 1861.

ZOOLOGICAL SOCIETY OF PHILADELPHIA (1859)

History

"The object of this corporation, the Zoological Society of Philadelphia, shall be the purchase and collection of living wild and other animals, for the purpose of public exhibition at some suitable place in the city of Philadelphia for the instruction and recreation of the people . . ." Fairmount Park was dedicated by the people for the use of the objects of the Society.

The officers were William Camac, president; J. L. Le Conte, corresponding secretary; John Cassin, W. S. Vaux, managers.

Bibliography

1859 [ZOOLOGICAL SOCIETY OF PHILADELPHIA. Constitution. Phila. 1859. 11 p.]
Approved March 21, 1859. Another ed. 1872.
Copy seen in Library of Congress.

HALL'S EXPEDITIONS TO THE ARCTIC REGIONS (1860)

History

Charles Frederick Hall conducted two expeditions to the Arctic regions during the sixties of the nineteenth century. The first left May 29, 1860, and returned September 13, 1862, the chief purpose of which was to discover traces of the party under Sir John Franklin.

The second was begun June 30, 1864, and ended September 26, 1869, although preparations had been made since 1862, following Hall's return from the first expedition.

Geological and other collections were made, which were described by B. K. Emerson. For the narratives of the expeditions see below, BIBLIOGRAPHY.

Bibliography

1863 STEVENS, R. P., LAWRENCE, G. N., and EGLESTON, Thomas. Report on the geological and mineralogical specimens collected by Mr C. F. Hall in Frobisher Bay.
Rd before N. Y. Lyc. Nat. Hist. (1817), in 1863, and pub. in Amer. J. Sc. (1818), v. 85 (ser. 2, v. 35), p. 293–95. March, 1863.

1865 HALL, Charles Francis. Arctic researches and life among the Esquimaux; being the narrative of an Expedition in search of Sir

John Franklin in the years 1860, 1861, and 1862. . . . N. Y. Harper, 1865 (c. 1864). 595 p. 103 illus. pl. map.

p. 594–95, Mineralogical and geological specimens. (see above 1863.

1879 NOURSE, J[oseph] E[verett]. Narrative of the Second Arctic Expedition made by Charles F. Hall: his voyage to Repulse Bay, sledge journeys to the Straits of Fury and Hecla and to King William's Land, and residence among the Eskimos during the years 1864–69 . . . edited . . . under orders of the Secretary of the Navy. Washington, Gov't print. office, 1879. 6 + 50 + 644 p.

p. 553–83, Appx. 3. EMERSON, B. K. On the geology of Frobisher Bay and Field Bay: descriptions of the collections made by C. F. Hall during the first expedition in the Arctic Regions: 1860–1862.

1884 ————. American explorations in the ice zones; the expeditions of De Haven, Kane, Rodgers, Hayes, Hall, Schwatka, and De Long . . . with a brief notice of the Antarctic Cruise under Lieut. Wilkes . . . prepared chiefly from the official sources . . . Bost. Lothrop, 1884. 578 p. illus.

Hall's Exped., 1st Voyage, p. 161–98; 2d Voyage, p. 199–286.

HAYES' ARCTIC EXPEDITIONS (1860)

History

In 1860, Isaac Israel Hayes, a member of Kane's Expedition to the Arctic Regions (1852), q.v., made a voyage to the Arctic Regions, which lasted through 1861. Hayes' Expedition, although not a federally supported exploring party, had the support and assistance of a number of the scientific institutions of the day.

Preparations were begun in June, 1860. The Smithsonian Institution furnished materials for collecting and preserving natural history specimens. For papers describing the collections made, see below PAPERS ON NATURAL HISTORY.

Hayes' personal "Narrative" was published in 1867 (see Bibliography, below).

Bibliography

1860 HAYES, Isaac Israel. An Arctic boat journey in the autumn of 1854 . . . Bost. Brown & Taggart, 1860. 17 + 375 p. map.

Another ed., 1867. 25 + 387 p. Appx. contains an account of the preparations made for his 1860 Expedition.

appx. (1st ed.), p. 355–75, Proceedings of Scientific societies and letters relative to Dr Hayes' proposed Arctic Expedition.

1867 ————. The open polar sea: A narrative of a voyage of discovery towards the North Pole, in the schooner "U. S." N. Y. Hurd & Houghton, 1867. 24+454 p. illus. pl. diagr. port. maps.
History of voyage, etc., p. 1–12.

1884 NOURSE, J[oseph] E[verett]. American explorations in the ice zones: the expeditions of De Haven, Kane, Rodgers, Hayes, Hall . . . prepared chiefly from the official sources . . . Boston, Lothrop, 1884. 578 p. illus.
ch. 5, p. 132–60, deal with Hayes' Explorations.

Papers on Natural History

1861 HAYES, I. I. . . . Historical and scientific results of his Voyage to the Arctic Regions . . .
Rd before Amer. Phil. Soc. (1769), Dec. 6, 1861. In its Proc. v. 8, p. 381–93.

1862 KILVINGTON, Robert. Cultivation of Arctic plants brought by Dr Hayes . . .
Rd before Phila. Acad. Nat. Sc. (1812), Oct. 7, 1862. In its Proc. v. 14, p. 482.

HAYES, I. I. Lecture on Arctic explorations.
In Smith. Inst. Ann. Rept. for 1861. Wash. 1862. p. 149–60.

1863 DURAND, Elias, JAMES, T. P., and ASHMEAD, Samuel. Enumeration of the Arctic plants collected by Dr I. I. Hayes in his explorations of Smith's Sound, between parallels 78th and 82d north latitude during . . . July, August and September, 1861.
Rd before Phila. Acad. Nat. Sc. (1812), March, 1863. In its Proc. v. 15, p. 93–6.

STIMPSON, William. Synopsis of the marine Invertebrata collected by the late Hayes' Arctic Expedition.
Rd before Phila. Acad. Nat. Sc. (1812), May 12, 1863. In its Proc. v. 15, p. 138–42.

1865 MEEK, F. B. Preliminary notice of a small collection of fossils found by Dr Hayes, on the west shore of Kennedy Channel, at the highest northern localities ever explored.
In Amer. J. Sc. (1818), v. 90 (ser. 2, v. 40), p. 31–4. July, 1865.

1867 HAYES, I. I. Physical observations in the Arctic Seas made on the west coast of North Greenland, the vicinity of Smith's Strait, and the west side of Kennedy Channel during 1860 and 1861. Wash., June, 1867. 11+271 p. 4°. (In Smith. Inst. Contr. to Knowledge. v. 15) Pub. no. 196.

ISTHMUS OF CHIRIQUI EXPEDITION (1860)

History

By an act of June 22, 1860, Captain F. Engle was ordered by the Secretary of the Navy "To examine into and report upon the

quality and probable quantity of coal to be found there upon the lands of the Chiriqui Improvement Co., upon the character of the harbors of Chiriqui lagoon and Golfito; upon the practicability of building a railroad across said Isthmus, so as to connect said harbors . . ." ENGLE, F. p. 17.

The exploration under Engle took place between August 26 and November 11, 1860. He was accompanied by John Evans, geologist, William N. Jeffers, hydrographer and J. S. C. Morton, topographer. Engle's Report was submitted Jan. 6, 1861, and the manuscript published the same year. See also below PAPERS IN SOCIETY TRANSACTIONS.

Report

1861 ENGLE, F[rederick]. Reports of the Chiriqui expedition and commission. Washington, 1861. 70 p. (In U. S. 36th Cong., 2d sess., H. Ex. Doc., v. 6, no. 41) Serial no. 1097.

CONTENTS:

p. 2– 3 ENGLE, F. Report.
p. 4–42 MORTON, J. S. C. Report of the officer in charge of the topographical division . . . Written Jan. 1861.
p. 42– 5 JEFFERS, W. N. Report of hydrographer.
p. 45–55 EVANS, John. Geological report. Written Dec. 31, 1860.

Paper in Society Transactions

1860 GABB, W. M. Descriptions of some new species of Tertiary fossils from Chiriqui, Central America.
Rd before Phila. Acad. Nat. Sc. (1812), Dec. 18, 1860. In its Proc. v. 12, p. 567–68.

BUFFALO SOCIETY OF NATURAL SCIENCES (1861)

History

"The earliest effort in the city of Buffalo to organize a society for the study of natural history dates back to April 10, 1858, when eight or ten boyish enthusiasts agreed to meet every Thursday evening, for interchange of scientific observations . . . where they discussed the first chapter of Genesis, the value to science of Hugh Miller's labors or those of Dr Edward Hitchcock and other like grave subjects and out of their slender funds subscribed for the Scientific American and the Horticultural Magazine to aid their budding endeavors.

. . . At first they called themselves "The Buffalo Natural History Society" but that did not suit them and after changing their title to "The Buffalo Scientific Society" and trying its effect for a few months they finally decided to be known as "The Lyceum of Natural Science" a name which they retained during a year or two of their somewhat brief existence . . . Among those early devotees of science were Henry S. Sprague, Wm. M. Stewart, James H. Hall, and Edward C. Taintor, who a little later shared in the organization of the Buffalo Society of Natural Sciences.

. . . The thought seems to have slumbered until at the suggestion of Coleman T. Robinson six enterprising young men met on the evening of October 5, 1861, at the studio of Charles Caryl Coleman . . . to discuss the organization of a "Natural History Society." Those present constituted themselves a committee to further the project and when they met again a week later they reported 113 names for possible membership. Other preliminary sessions followed and Thursday evening, November 21, 1861, a larger meeting of those interested was held at Odd Fellows' Hall when a form of Constitution and suitable By-laws submitted by R. W. Haskins, David Gray and Coleman T. Robinson . . . were discussed, a primary election held and a call issued through the newspapers for a general meeting at Lower St. James' Hall on the evening of Thursday, December 5th.

At this meeting Judge Clinton presided. The "Constitution" was adopted, its first provision being that the Society should be called "The Buffalo Society of Natural Sciences" and its object "the promotion and study of the natural sciences, through the formation of a museum and a library, the procurement of lectures and by such other means as shall be efficient and desirable for that purpose." At this meeting Hon. George W. Clinton was made president; Rev. A. T. Chester and Charles Winne, vice-presidents; Samuel Slade, corresponding secretary; Theodore Howland, recording secretary; Leon F. Harvey, treasurer; and Richard K. Noye, librarian. The nine curators first chosen who, with the officers, made up the Executive Board for management of the Society's affairs were, George E. Hayes, William S. Van Duzee, Hiram E. Tallmadge, Charles T. Marshall, Coleman T. Robinson, Charles C. F. Gay, Charles S. Farnham, David F. Day and Charles F. Wadsworth.

. . . Within a year about one hundred names were added to the local membership, including Henry A. Richmond, Augustus R. Grote, William H. Glenny and many beside who have proven steadfast friends to the Society.

. . . The first lecturer was Prof. Benjamin Silliman who came for the evenings of Feb. 19th, 20th and 21st, 1862 . . . About April 1, 1862, other rooms were secured over the New York and Erie Bank on West Seneca Street near Pearl. Here the Museum was fairly started in cases provided by Coleman T. Robinson. Augustus R. Grote contributed 600 specimens of Coleoptera collected in the state of New York and a like number of a catalogued species of plants collected in the Rocky Mountains by Elihu Hall and J. P. Harlan.

W. W. Stewart was placed in charge of the Museum which grew so rapidly that soon the Seneca Street quarters were inadequate and more commodious rooms were taken in the third floor of the Jewett Building on Main St., opposite St. Paul's church, where the collections might be better displayed.

On the 23rd of January, 1863, the society was incorporated . . . April 17, 1863, the Executive Committee of the Young Men's Association adopted a resolution authorizing their building committee to confer with the other societies of Buffalo of a kindred character with reference to constructing a building which would accommodate the several organizations.

Accordingly in response to their invitation, on the 25th of April a Committee of the Society of Natural Sciences consisting of Judge Clinton, its president, David F. Day and Coleman T. Robinson were appointed for conference and July 9th, it was resolved "that this Society elects to Participate in the erection and occupancy of the proposed building for the use of the Young Men's Association, the Grosvenor Library and other institutions of the City, and to the raising of funds for that purpose." These negotiations finally ended in the purchase from Mr A. Brisbane of the property . . . at the corner of Main and Eagle Streets . . . for which the sum of $112,000 was paid.

At this time subscriptions to the amount of $81,655 were secured, the property purchased . . . and January 10, 1865, the new buildings were occupied and the Society of Natural History found itself housed under the same friendly roof with the library, Academy of Fine Arts and the Historical Society . . ." HOWLAND, H. R. p. 3–7 (See below, the BIBLIOGRAPHY).

Bibliography

1864 CLINTON, G. W. Preliminary list of the plants of Buffalo and vicinity. Buffalo, 1864. 12 p.
Published under the auspices of the Society.

1907 HOWLAND, Henry R[aymond]. The Buffalo Society of Natural Sciences: historical sketch. Buffalo, 1907. 25 p. port. (In Buffalo Soc. Nat. Sc. Bull. v. 8, no. 6)

LINNAEAN SOCIETY OF LANCASTER, PA. (1862)

History

". . . After many embarrassing delays and ineffectual attempts to organize this Committee upon a working basis—mainly arising from an apprehension that the pecuniary means necessary to give it practical effect, could not, or would not be furnished by the Society to which it was subordinate, the Committee on Natural Science at length conceived the idea of organizing a Natural History Society upon an independent footing, having for its object the cultivation and investigation of the natural history of Lancaster County and the vicinity; and for that purpose it met at the "Athanaeum rooms" on the 15th day of February, 1862, instituted and organized the Linnaean Society . . .

The original members of the new Association that had been organized under the name of the Linnaean Society were men pursuing a variety of the active occupations of life, and not any of them possessed of either wealth or leisure. They consisted mainly of the old "Committee on Natural Science" of the Athanaeum and Historical Society, among whom were Prof. T. C. Porter, J. P. Wickersham, E. B. Weaver, and Messrs S. S. Rathvon, J. Stauffer, J. R. Sypher, J. B. Kevinski, Samuel Auxer, J. F. Heinitsch and D. G. Swartz. Subsequently Messrs G. M. Zahm, J. M. Seitz, H. M. Bruckert, J. S. Witmer, and others were added." Rathvon, p. 3–4.

The officers first elected were T. C. Porter, president and J. Stauffer, S. S. Rathvon, J. B. Kevinski and H. G. Bruckert, curators.

Bibliography

1866 RATHVON, S. S. An essay on the origin of the Linnaean Society of Lancaster city and county; its objects and progress, read before the Association on its 4th anniversary, at the Athanaeum Rooms, February 24th, 1866; to which are appended its charter, its list of officers, its members and its correspondents. Lancaster, 1866. 18 p.

WARD MUSEUM OF NATURAL HISTORY, ROCHESTER, N. Y. (1862)

History

The Ward Cabinets of Mineralogy and Geology, University of Rochester, Rochester, N. Y. were "collected by Mr Henry A. Ward, a native and citizen of Rochester. This gentleman had, as a student of Natural Science, visited our American localities quite extensively, and had obtained at them considerable collections of minerals and fossils.

"He afterwards spent six years in Europe, studying in the large museums, and travelling very widely through that continent and into Asia and Africa, in executing the detail of a plan which he had formed for a large mineralogical and geological museum.

". . . Mr Ward says: 'I look upon the Cabinets as being for many reasons preeminently adapted for a large institution of learning. I have collected them, almost from the first, upon a plan which was strictly an educational one, and which contemplated a full and equal illustration of these sciences. I have wished that the student shall find in these collections a specimen representing each point of mineral composition, or structure, or form of extinct life, to which the study of his text-book, or his wider reading, shall have called his attention . . .'

"These Cabinets were offered by Mr Ward to the University of Rochester (to which institution he had, in the meanwhile, been called as a professor of the Natural Sciences), for the sum of twenty thousand dollars—a sum which several men of science, experts in such questions, have declared to be far below their real value. A vigorous effort—inaugurated and led by President Anderson—resulted in the subscription of the entire sum by friends of the University, chiefly citizens of Rochester . . .

". . . Ten rooms in Anderson Hall, the largest of them, 58 by 33 feet—have been fitted up for the preservation and display of the specimens . . . Unusual pains have been taken both for the surest preservation and the most perfect display of the specimens. Every specimen is mounted on a separate block, and is accompanied by a handsome label. Mr Ward proposes, when the work of Classification and labelling is complete, to prepare a full catalogue of the contents of the Cabinet. At present he has furnished a summary of the more prominent divisions, which will give an idea of their scope and richness.

"The two principal divisions are the Cabinets of Mineralogy and Geology . . ." See Notice of the Cabinets, 1863. p. 5–7. (See Bibliography, 1863, below.)

Notices of the Cabinets also appeared in the Amer. J. Sc., v. 83 (ser. 2, v. 33), p. 449–51, Mar. 1862; v. 85 (ser. 2, v. 35), p. 152. Jan. 1863; & v. 92 (ser. 2, v. 42), p. 136, 1866.

Bibliography

1863 UNIVERSITY OF ROCHESTER. Notice of the Ward Cabinets of Mineralogy and Geology, lately presented to the University of Rochester. Rochester, N. Y., 1863. 44 p. illus. pl.
p. 5–7, History of the Cabinets; p. 8–13, Cabinet of Mineralogy; p. 13–22, Cabinet of Geology; p. 23–24, Opinions of scientific men; p. 35–40, Geology as a branch of education; p. 41–44, List of subscribers.

1864 WARD, H[enry] A[ugustus]. Notice of the Megatherium Cuvierii, the giant fossil ground-sloth of South America, presented to the University of Rochester, by Hiram Sibley, Esq. [Rochester, N. Y.], 1864. 34 p.
Rev. in Amer. J. Sc. v. 88 (ser. 2, v. 38), p. 295. 1864.

1919 FAIRCHILD, Herman Le Roy. Henry Augustus Ward. (In Rochester Acad. Sc. Proc. v. 5, p. 241–51, port. May, 1919).

1927 SCIENCE. n. s., v. 66, p. 346–47. Oct. 14, 1927.
Gift of Ward's Natural Science Establishment to the University of Rochester.

NATIONAL ACADEMY OF SCIENCES, WASHINGTON, D. C. (1863)

History

"The National Academy of Sciences owes its origin as an organization, in an indirect manner, to the need of the government for technical scientific advice in connection with the conduct of the Civil War. In February, 1863, the Secretary of the Navy, Gideon Welles, appointed a 'permanent Commission' consisting of Joseph Henry, Secretary of the Smithsonian Institution, Alexander Dallas Bache, superintendent of the Coast Survey, and Charles M. Davis, chief of the Bureau of Navigation to report 'on various matters of science and art,' but chiefly of practical import and relating to the physical sciences. . . ."

The Academy was incorporated March 3, 1863, and was to consist of not more than fifty ordinary members.

The classes of the Academy were two in number: Class A) 1. Mathematics; 2) Physics; 3) Astronomy, geography, and geodesy; 4) Mechanics; 5) Chemistry; Class B) Natural history; 1) Mineralogy and geology; 2) Zoology; 3) Botany; 4) Anatomy and physiology; 5) Ethnology.

Of the first members of the Academy the following were naturalists: Louis Agassiz, S. F. Baird, J. D. Dana, George Engelmann, A. A. Gould, Asa Gray, James Hall, J. L. Le Conte, Joseph Leidy, J. P. Lesley, Leo Lesquereux, J. S. Newberry, W. B. Rogers, Benjamin Silliman, Sr., Benjamin Silliman, Jr., John Torrey, Jeffries Wyman, J. D. Whitney, Edward Hitchcock, J. G. Totten and J. P. Kirtland and Arnold Guyot.

In 1863, at its foundation, A. D. Bache was president; J. D. Dana, vice-president; Louis Agassiz, foreign secretary; Wolcott Gibbs, home secretary; Fairman Rogers, treasurer. The chairman and secretary of the Natural History Section were respectively Benjamin Silliman, Sr., and J. S. Newberry.

Prior to 1866 the only regular publication of the Academy was an Annual. See below, BIBLIOGRAPHY. A list of the PAPERS ON NATURAL HISTORY read before the Academy between 1863 and 1866 is given below, although the papers were not published because of the lack of a regular organ of publication. Only the titles are given to illustrate the type of material presented.

Bibliography

1864 NATIONAL ACADEMY OF SCIENCES. Report of the . . . for the year 1863. Washington, 1864. 118 p.

1865 ————. Annual of the . . . for 1863–1864. Washington, 1865. 112 p.

1877 ————. Proceedings of the . . . Washington, 1877. 1 v.

————. Biographical memoirs . . . Washington, 1877–date. v. 1–date.

Contains biographical sketches of many of the leading naturalists of the 19th century. See for individual names, BIBLIOGRAPHY OF BIOGRAPHIES.

1891 BENJAMIN, Marcus. The National Academy of Sciences. (In Chautauquan. v. 12, no. 5, p. 601–5. Feb. 1891)

1913 NATIONAL ACADEMY OF SCIENCES. A history of the first half-century of the National Academy of Sciences: 1863–1913. Washington, 1913. 13 + 399 p. 4°.

ch. 1, p. 1– 23 Founding of the Academy
ch. 2, p. 25–102 Annals of the Academy
ch. 3, Biographical sketches of the incorporators.

1914 HALE, George Ellery. . . . The first half-century of the National Academy of Sciences. (In Science. n. s. v. 39, p. 189–200. Feb. 6, 1914)

See also Science. n. s. v. 59, p. 405–10. May 9, 1924, for Addresses delivered on the occasion of the dedication of the Academy's new building in Washington.

Papers on Natural History

1864 AGASSIZ, Louis. On the individuality among animals with reference to the questions of varieties and species.

————. On the metamorphoses of fishes.

————. On the geographical distribution of fishes, as bearing upon their affinities and systematic classification.

1865 ————. On the homologies and classification of the Cephalopods.

BAIRD, S. F. On the geographical distribution of North American birds.

AGASSIZ, Louis. On the metamorphoses of some Malacopterygians.

————. On the glacial phenomena and present configuration of the state of Maine.

WHITNEY, J. D. On the progress of the Geological Survey of California.

————. On the mineral lands of the United States, and the relations of the government to their management.

NEWBERRY, J. S. On the origin and formation of sedimentary rocks.

————. On the origin and distribution of petroleum in the United States.

LESQUEREUX, Leo. The Fucoids of the coal measures.

WHITNEY, J. D. On the systems of mountain upheaval to which the continent of North America owes its present configuration.

PUMPELLY, Raphael. Abstract of the geological investigations made in China and Mongolia.

GOULD, A. A. Examination of shells obtained by the sounding-lead in the Coast Survey of New York and New Jersey . . .

1865 GUYOT, Arnold. On the probable immediate cause of the glacial epoch of the Post-Tertiary.

NEWBERRY, J. S. On the lower Silurian oils of Kentucky and Tennessee.

HARVARD UNIVERSITY (GRAY) HERBARIUM, CAMBRIDGE, MASS. (1864)

History

". . . Dr Asa Gray has presented to Harvard University his invaluable Herbarium and his botanical library; which have been

safely transferred to the fire-proof building furnished, at a cost of over twelve thousand dollars, by the generosity of Nathaniel Thayer, Esq. of Boston. A fund has also been raised by subscription, for the support and increase of the collection. The gift of Dr Gray cannot be estimated in money, but it embraces the results of many years' labor faithfully given by that distinguished botanist, aided by the generosity of his collaborators and correspondents in various parts of the world. The collections were formally presented by the following letter:

Botanic Garden, Cambridge,
November 30, 1864.

To the Rev. Dr Hill,
President of Harvard University.

My Dear Sir: I have the pleasure to inform you that the Herbarium and Botanical Library, which a year ago I offered to present to the University, are now safely deposited in the building erected for their reception by Mr Thayer. I have regarded them as belonging to the University from the beginning of the present year: but I wish more formally to make them over to the President and Fellows, as the foundation of the Harvard University Herbarium.

The Herbarium is estimated to contain at least 200,000 specimens, and is constantly increasing. From the very large number of typical specimens it comprises, its safe preservation is very important.

The Library, from the rough catalogue which has been made out, contains about 2,200 botanical works—perhaps 1,600 volumes, and nearly as many separate memoirs, tracts, etc. . . .

The current expenses of the establishment for the first half of the year now drawing to a close have been defrayed by Dr Jacob Bigelow, who placed in my hands a special donation of two hundred dollars for this purpose.

I had stated that the income of a capital sum of 10,000 dollars would be required to defray the current expenses of the Herbarium .i.e., for the purchase of certain collections and books not obtainable by exchange, for freights and charges, paper, alcohol, fuel, etc. I am informed that this sum which Mr George B. Emerson undertook to raise by subscription, is substantially secured. It is desirable, but probably not at this time practicable that the endowment should be so far extended as to provide for the services of a Curator, so that I could myself devote valuable time to the prosecution of important botanical works for which I am prepared, and to which I am pledged . . .

Asa Gray.

We understand that extensive collections of botanical specimens, to be added to the Herbarium, have recently accrued. Among them are:

A full suite of Mr Charles Wright's collections (about 2500 specimens) made in Cuba during the past four years, and just now arranged and distributed among botanists.

A very interesting set of plants recently collected, chiefly by Professor Brewer in the Geological Survey of California under Professor Whitney.

The numerous and important duplicate Carices (and other Cyperaceae), of the late Dr Boott, presented by Mrs Boott; the proper Herbarium set of Carices having been bequeathed to the Herbarium of the Royal Gardens of Kew.

A large collection of plants of Mauritius and Madagascar, and a continuation of the distribution of the British East Indian Herbaria of Griffith, Helfer, etc., presented by the directors of the Royal Botanic Gardens at Kew.

A similar distribution (in continuation) of plants of the Dutch East Indies and Japan, from the Royal Netherlands Herbarium, Leyden, now under the charge of Professor Miquel.

A selection from the Mexican collections of the late Professor Liebmann (oaks, ferns, Cyperaceae, etc.,) from the Royal Danish Botanic Gardens, Copenhagen.

An extensive set of authentically determined plants of Persia, Siberia, and northern China, from Professor Bunge of Dorpat; and of Algerian plants from Dr Cosson.

A set of Mandon's plants of the Andes of Bolivia, acquired by purchase. A fine general collection of Algae from Professor Agardh of Lund . . .

But the most notable accession is the munificent gift which has just been made by John A. Lowell, of all the botanical books of his own library which the new establishment did not already possess . . . in all 335 volumes, the pecuniary value of which must be reckoned at several thousand dollars. . . ." From AMER. J. SC. v. 89 [ser. 2, v. 39] p. 224–26. Mar. 1865.

Bibliography

1886 ANON. The Gray Herbarium of Harvard University. (In Bot. Gaz. v. 11, p. 151–53. June, 1886)

KANSAS GEOLOGICAL SURVEYS (1864)

History

The state of Kansas authorized its first state geological survey very early in 1864. The Governor of the state appointed Benjamin Franklin Mudge as the first state geologist, for one year be-

ginning March 1, 1864. His assistants were Maj. Frederick Hawn, assistant geologist; Tifflin Sinks, chemist and meteorologist; George Clinton Swallow, palaeontologist, and C. A. Logan, botanist.

At the expiration of his term, Mudge was succeeded by Swallow. The other members of the Survey were reappointed. Both Reports were published in 1866.

Seven thousand five hundred dollars were appropriated for carrying on the survey.

For a brief account of the surveys of Kansas, see also HAYES, p. 59–60.

For a critical review of the geological aspects of the surveys, see MERRILL (1), p. 525–26; 527–28. See also MERRILL, G. P. First 100 yrs. Amer. Geol. 1924. p. 422–26.

Bibliography

1887 HAY, Robert, and THOMPSON, A. H. Historical sketch of geological work in the state of Kansas. Topeka, 1887. (In Kansas Acad. Sc. Trans. for 1885–86. v. 10, p. 45–52)

1896 HAY, Robert. A bibliography of Kansas geology, with some annotations. Topeka, 1896. (In Kansas Acad. Sc. Trans. for 1893–94. v. 14, p. 261–78)
A classified list.

KANSAS. GEOLOGICAL SURVEY. University Geological Survey of Kansas, conducted under authority of the Board of Regents of the University of Kansas. Topeka, 1896–1908. 9 v. 4°.
Carried out by Erasmus HAWORTH and assistants.

1898 ADAMS, George I[rving]. The Upper Cretaceous of Kansas: a historical review. Topeka, 1898. (In Univ. Geol. Surv. Kansas. v. 4, Palaeontology. p. 13–27)
Addenda by S. W. WILLISTON, p. 28–32.

1908 HAWORTH, Erasmus, and BENNETT, John. History of fieldwork [in Kansas]. Topeka, 1908. (In Univ. Geol. Surv. Kansas. v. 9, ch. 2, p. 42–56)

1920 MERRILL, George P[erkins], ed. Kansas Geological Surveys. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 97–100. port.)
History of surveys to 1885.

Reports

1866 MUDGE, B[enjamin] F[ranklin]. First annual report on the geology of Kansas. Lawrence, Kansas, John Speer, 1866. 56+[1] p.

A report for the year 1864. p. 4–15.
Pt. 2, Economical geology. p. 17–53.
Appendix. p. 55– 6.

SWALLOW, G[eorge] C[linton]. Preliminary report of the geological survey of Kansas. Lawrence, Kansas, John Speer, printer to the state, 1866. 198 p.
Report made Jan. 8, 1866.

CONTENTS:

Introduction: What a geological survey should accomplish. p. [5]–8.
Section of the rocks in Eastern Kansas. p. [9]–28.
Geology of Kansas. p. [29]–48.
Economical geology. p. [49]–69.
Geological Report of Miami County. p. [71]–94.
HAWN, Frederick. Report . . . of assistant geologist. p. 95–122. Dated Dec. 20, 1865.
LOGAN, C. A. Report of the sanitary relations of the state of Kansas. p. 123–72. Dec. 1, 1865.
Trees, shrubs, etc. of Kansas, p. 163–64.
SINKS, Tifflin. Report of the climatology of Kansas. p. [173]–92.

LOUISIANA GEOLOGICAL SURVEY (1864)

History

Early in 1864, Gov. H. W. Allen of the state of Louisiana authorized Judge John B. Robertson of New Orleans "to begin a systematic investigation of the agricultural, mineral and manufacturing resources of the state." Robertson was accompanied by Charles Tripp, mineralogist; John H. Jones, and John Roy.

Sixteen months were spent in the field. In 1867, a Report was rendered to the state legislature. For a history of survey work in Louisiana to 1885, see MERRILL, under BIBLIOGRAPHY: 1920, below.

The New Orleans Academy of Sciences (1853), q.v., made active efforts at various times to bring about a survey of the state (see BIBLIOGRAPHY, below: 1858 & 1866).

Bibliography

1858 NEW ORLEANS ACADEMY OF SCIENCES. Report of the special committee of the . . . appointed Dec. 7, 1857, to investigate and report, at as early a day as practicable, upon the subject of a geological and scientific survey of the state of Louisiana, with a view to bringing the matter before the Legislature of the State, at the

commencement of the ensuing session; unanimously adopted, Feb. 1, 1858. New Orleans, 1858. 13 p.

Committee consisted of Messrs. N. B. Benedict, J. L. Riddell, P. E. Bonford, A. G. Blanchard, and W. A. Gordon.

1866 ————. Memorial of the . . . to the Senate and House of Representatives of the State of Louisiana. New Orleans, 1866. 8 p.

1899 HARRIS, Gilbert D[ennison], and VEATCH, A[rthur] C[lifford]. Historical review of the geology of Louisiana . . . Baton Rouge, La., 1899. (In Louisiana Geol. Surv. Rept. for 1899. pt. 5, p. 11–44)

p. 11–23, 1st period: Earliest explorations to 1867.
p. 23– 8, 2nd " : Reconnaissance period: 1867–1902.
p. 39–44, 3rd " : Experiment stations.

1920 MERRILL, George P[erkins], ed. Louisiana Geological Surveys. Washington, 1920. (In U. S. Nat. Mus. Bul. no. 109, p. 124–29).

History of Surveys to 1885, chiefly from MS by E. W. HILGARD.

Report

1867 ROBERTSON, John B. Report . . . Jan. 1867. . . . New Orleans, 1867. 25 p.

For discussion of Contents, see MERRILL (BIB.: 1920, above), p. 124–26.

AMERICAN JOURNAL OF CONCHOLOGY (1865)

History

The AMERICAN JOURNAL OF CONCHOLOGY was founded and edited by George Washington Tryon, Jr., and made its first appearance on Feb. 25, 1865. Seven volumes in all were published during its existence. It was published quarterly; irregularly however. The contents of the first volume for 1865 are given below. Volume 1 contains portraits of Thomas Say, A. A. Gould, C. B. Adams, and Isaac Lea; v. 2, those of Wesley Newcomb, J. G. Anthony, Thomas Bland, and S. S. Haldeman; v. 3, that of S. P. Kirtland.

Bibliography

1865 AMERICAN JOURNAL OF CONCHOLOGY . . . edited by George W. Tryon, Jr. Phila., G. W. Tryon, Jr., 1865–71. 7 v.

v. 1, 8 + 387 p. 27 pl. port.

1901 SYKES, E[rnest] R[uthven]. Digesta malacologia; no. 1: A summary of the American Journal of Conchology, 1865–1872. London, 1901. 8 + 46 p.

CONTENTS.

v. 1, pt. 1, Feb. 25, 8 + p. 1–96, port.

1865 CONRAD, T. A. Catalogue of the Eocene and Oligocene Testacea of the United States. p. 1–35.

Corrections & additions opp. p. 190, in no. 2, (2p.)

ANTHONY, J. G. Descriptions of two new species of Goniobasis. p. 36, illus.

G. translucens; G. interlineata, A.

HALDEMAN, S. S. Description of two new species of Goniobasis. p. 37, illus.

G. graminea; G. catabea; Haldeman.

TRYON, G. W., Jr. Description of new species of Strepomatidae. p. 38, illus.

Goniobasis Haldemani, T.; Pleurocera Conradi, T.

————. Descriptions of new species of Pholadidae. p. 39–40, illus.

Navea Newcombii, T., Penitella parva, T., P. curvata, T.

————. Observations on the genus Io. p. 41–4, 2 pl.

BLAND, Thomas. Note on the buccal plate (jaw), in certain genera of the family Cyclostomacea. p. 45–6, 1 pl.

BINNEY, W. G. Note on the jaws of Helices. p. 47, 1 pl.

————. Description of the genus Ariolimax, Morch. p. 48.

————. Descriptions of new species of North American land and fresh water shells. p. 49–51, 1 pl.

STIMPSON, William. Diagnoses of newly discovered genera of Gasteropods, belonging to the family (sub) Hydrobiinae, of the family Rissoidae. p. 52–4, 2 pl.

————. On certain genera and families of zoophagous Gasteropods. p. 55–64, illus.

WHEATLEY, C. M. Revision of M. Petit's Catalogue of the genus Monocondyloea, D'Orb. p. 65–6.

TRYON, G. W., Jr. Catalogue of Mollusca collected by Prof. D. S. Sheldon, at Davenport, Iowa. p. 68–70.

v. 1, pt. 2, p. 97–190, pl. port., April 15

————. Observations on the family Strepomatidae. p. 97–135, 1 pl.

BROWN, A. D. Descriptions of two new species of Helix. (H. Liberiae, nob. & H. Africae, nob.). p. 136.

CONRAD, T. A. Description of new Eocene shells from Enterprise, Missouri. p. 137–41, 1 pl.

————. Description of new Eocene shells of the United States. p. 142–49, 1 pl.

———. Catalogue of the older Eocene shells of Oregon. p. 150–54, 5 pl.

ANTHONY, J. G. Descriptions of new species of North American Unionidae. p. 155–64.

TRYON, G. W., Jr. Catalogue of the species of Physa, inhabiting the United States. p. 165–73.

v. 1, pt. 3, p. 191–286, port. pl. July 1.

ANTHONY, J. G. Descriptions of two new species of Monocondyloea (M. Peguensis & M. crebristriata, A.). p. 205–6, illus.

———. Description of a new exotic Melania (gloriosa). p. 207, illus.

GABB, W. M. Description of three new species of Mexican land shells. p. 208–9, illus.

Cylindrella Remondii; Helix (Polygyra) Behrii; & H. (P.) Anilis.

CONRAD, T. A. Description of new Eocene shells, and references with figures to published species. p. 210–12, pl.

———. Description of five new species of older Eocene shells from Shark River, Monmouth Co., N. J. p. 213–15, pl.

TRYON, G. W., Jr. Descriptions of new species of Melania. p. 216–18, illus.

———. Descriptions of new species of Amnicola pomatiopsis, Somatogyrus Gabbia, Hydrobia and Rissoa. p. 219–22, illus.

———. Descriptions of new species of North American Limnaeidae. p. 223–31, illus.

CONRAD, T. A. Remarks on the genera Monocondyloea, D'Orb., and Pseudodon, Gould, with a synopsis of the latter. p. 232–33.

———. Description of a new genus of Unionidae (Arconaia lanceolata). p. 234.

NEWCOMB, Wesley. Description of a new species of Helix (macrocyclis, Voyana). p. 235, illus.

TRYON, G. W., Jr. Review of the Goniobases of Oregon and California. p. 236–46, 1 pl.

———. Catalogue of the species of Limnaea inhabiting the United States. p. 247–58.

WHITFIELD, R. P. Descriptions of new species of Eocene fossils. p. 259–68, 1 pl.

v. 1, pt. 4, p. 287–387, pl. port. October 1.

PEASE, W. H. Descriptions of new species of Phanero-pneumona, inhabiting Polynesia. p. 287–91.

CURRIER, A. O. Catalogue of the Mollusca of Grand Rapids, Michigan. p. 292–96.

Assisted by J. A. MCNIEL & William H. DE CAMP.

TRYON, G. W., Jr. Description of a new species of Mercenaria. p. 297.

HALDEMAN, S. S. On the propriety of Leptoxis as a generic name. p. 298, 378.

TRYON, G. W., Jr. Monograph of the family Strepomatidae. p. 299–341. [257 fig.]

NEWCOMB, Wesley. Catalogue of Helices inhabiting the west coast of America, north of Cape St. Lucas, and west of the Rocky Mountains; together with remarks upon some of the animals, and their special distribution. p. 342–50.

Additions in v. 2, p. 13. Jan. 1866.

ANTHONY, J. G. Description of new species of shells (Unio Peguensis & Helix Cerinoidea). p. 351.

CONRAD, T. A. Description of a new species of Pseudodon (ellipticum Conrad). p. 352.

NEVADA GEOLOGICAL SURVEY (1865)

History

By virtue of an act approved March 20, 1865, the state legislature of Nevada authorized the appointment of a state geologist, and the expenditure of $6,000 for the maintenance of a state geological survey. Nothing seems to have been done until 1866, when under a new act R. H. Stretch was appointed state geologist.

Bibliography

1920 MERRILL, George P[erkins], ed. Nevada Geological Survey. Washington, 1920. (In U. S. Nat. Mus. Bull. no. 109. p. 291–99).

BIBLIOGRAPHY OF BOOKS, PAMPHLETS, AND MISCELLANEOUS ARTICLES ON AMERICAN NATURAL HISTORY: 1590–1865

A. Colonial Period: 1590–1768
B. Pioneer Century: 1769–1865

PART A: Colonial Period: 1590–1768

Many of the papers which appeared in the Philosophical Transactions of the Royal Society of London were also published in abstract in the 1749 (5th ed. corrected) and 1809 editions of the early Transactions. Pagination for these editions is therefore added after each entry.

1590 HARIOT, Thomas [or Harriot, or Harriott]. A briefe and true report | of the new found-land of Virginia, | of the commodities and of the nature and man | ners of the naturall inhabitants, Discouered

by | the English colony there seated by Sir Richard | Greinuile Knight In the yeere 1585. Which rema | ined vnder the gouernement of twelve monethes | At the speciall charge and direction of the Honou | rable Sir Walter Raleigh Knight, Lord Warden | of the stanneries Who therein hath been favoured | and authorised by her Maiestie | and her letters patent: | This fore booke Is made in English | By Thomas Hariot servantt to the aboue named | Sir Walter, a member of the Colony, and there | imployed in discouering | Cum Gratia et Privilegio, Caes Matis Specialis | . . . Francoforti ad Moenum | Typis Ioannis Wecheli sumtibus vero Theodori | De Bry Anno CƆIIƆXC [1590]. 33 p. 4°.

First printed in London in 1588. 23 leaves 4°. (See entry in SABIN, v. 8, p. 76–77)

Repr. in Hakluyt, Richard. The principall Navigations. . . . London, 1659. p. 748–64.

Repr. & ed. by W. Harry Rylands. Manchester, England, 1888. [4], 33, [46] p. 24 pl. (Holbein Soc.)

Repr. London, B. Quaritch, 1893. 6, 7–111 p. pl. map.

See also Goode, G. B. U. S. Nat. Mus. Ann. Rept. for 1897. pt. 2. Wash. 1901. p. 357–62.

Also in Biol. Soc. Wash. Proc. v. 3, p. 36–43. 1886.

G. D. Smith, the famous New York bookseller, in 1922, quoted a copy of the original at $10,000.

For a comprehensive treatment of Hariot see Stevens, Henry. T. H. . . . London, 1900. 213 p.

For description and collation of a copy of DeBry's "Hariot," see SABIN, v. 3, p. 29–30.

1602 BRERETON, John. A briefe and true relation of the discouerie of the North part of Virginia; being a most pleasant, fruitfull and commodious soile: Made this present yeere 1602, by Captaine B. Gosnold . . . written by . . . Lond. Bishop, 1602. 48p. 4°.

Repr. in Mass. Hist. Soc. Coll. ser. 3, v. 8, p. 83–123. 1843.

See also SABIN, v. 2, p. 457–58.

1605 *VEGA, Garcilasso de la. Historia de la Florida . . . Lisbon, 1605.

1607 NEWPORT, Christopher. A relation of the discovery of our river, from James Fort, made into the Maine, made by . . . and sincerely written and observed by the gentleman of the colony, 1607. (In Amer. Antiquarian Soc. Archaeologia Americana. Worcester, Mass., 1860. v. 4, p. 40–65)

1609 DE SOTO, Ferdinando. Virginia, richly valued, by the description of the maine land of Florida . . . Lond. 1609. 77 p.

See notes in Bradley Bibliography, v. 3, p. 263.

1612 SMITH, John. A map of Virginia with a description of the country, the commodities, people, government, and relegeon . . . Oxford, printed by Joseph Barnes, 1612. 174 p.

See also Goode, G. B., in U. S. Nat. Mus. Ann. Rept. for 1897. p. 371–72. 1901 & Biol. Soc. Wash. Proc. v. 3, p. 55–6. 1886.
See also COUES (1), pt. 1, p. 569. See also SABIN, v. 20.

1615 HAMOR, Ralphe. True discourse of the present state of Virginia. Lond. Printed by John Beale for W. Welby, 1615. 4 + 69 + [1] p.

Repr. Albany, Munsell, 1860. 5 + 69 p.
See also COUES (1), pt. 1, p. 569. See also SABIN, v. 8, p. 46–7.

1620 * LINOCIER, Geoffroy. Histoire des plantes nouvellement trouvees en l'isle de Virginie et autres lieux, lesquelles ont ete prises et cultivees au jardin dudit Robin. Paris, 1620. (In Dupinet, Antoine. L'histoire des plantes, traduit du Latin . . . par Geoffroy Linocier. Paris, 1622)

1624 SMITH, John. The generall historie of Virginia, New-England and the Summer Isles . . . Lond. 1624. 12 + 248 p. 5 pl. 2 fold. maps.

Numerous subsequent ed. Repr. Richmond, 1819. 2 v.
See Bradley Bibliography. v. 3, p. 261.
See annotation under 1612: Smith.

1630 [HIGGINSON, Francis] New-England's plantation; or, a short and true description of the commodities and discommodities of that country written by a reverend Divine now there resident . . . Lond. Michael Sparlee, 1630. 20 p. 4°.

See also COUES (1), pt. 1, p. 571, & SABIN, v. 8, p. 273.

1632 MORTON, Thomas. New English Canaan; or, New Canaan, containing an abstract of New England, composed in three books . . . 1632.

See also Goode, G. B. U. S. Nat. Mus. Ann. Rept. 1897. Wash. 1901. p. 373–74.
Repr. Force's Hist. Tracts. v. 2, tract no. 5, 1838. 2d ed. Amsterdam, J. F. Stam, 1637. 188 p. [2 l.] 16°.
See also COUES (1), pt. 1, p. 571, 573, & SABIN, v. 12, p. 427–28.

1633 WHITE, Andrew. An account of the colony of the Lord Baron of Baltimore. 1633.

Repr. in Narratives of early Maryland; ed. by C. C. Hall. 1910. p. 5–10. (In Original narratives of early American history)

1634 YONG, Thomas. Relation of Captain Thomas Yong. 1634.

Repr. in Narratives of early Pennsylvania, west N. J., and Delaware. 1912. p. 37–49. (In Original narratives of early American history) Animals and plants, p. 47–9.

WOOD, William. New England's prospect . . . London, 1634. [6] + 103 p. map.

For other ed. see the Bradley Bibliography, v. 3, p. 262.

See also Goode, G. B. U. S. Nat. Mus. Ann. Rept. 1897. Wash. 1901. pt. 2, p. 373–74.

See also COUES (1), pt. 1, p. 572.

1649 ANON. A perfect description of Virginia. Lond. 1649. 18 p.

Natural history, p. 16–8.

Repr. in (Force, Peter. Historical tracts. 1838. v. 2, no. 8)

1655 * DONCK, Adriaen van der. Beschryvinge Van Nieuw-Nederlant . . . Amsterdam, 1655. [6] + 100 + [3] p. 1 illus.

2d ed. Amsterdam, 1656. Transl. by H. C. Murphy. (In N. Y. Hist. Soc. Coll. ser. 2, v. 2, p. 251–338. 1849) Vegetable products, Dutch ed., p. 13–25; English ed., p. 263–6. See also SABIN, v. 5, p. 482–83.

1656 * TRADESCANT, John. Museum Tradescantianum: or, A collection of rarities preserved at South-Lambeth near London. London, printed by John Grismond, and are to be sold by Nathanael Brooke at the Angel in Cornhill, 1656. [24] + 178 + [5] p. 2 port. 8°.

Contains a list of specimens of plants collected in Virginia between 1642 and 1654 by J. T. and his son. Copy seen in Library of Brooklyn Botanic Garden. See also Gardener's Chronicle. v. 80, no. 2084, p. 442, port. Dec. 4, 1926.

1664 HILTON, W[illiam]. A relation of a discovery lately made on the coast of Florida, from Lat. 31, to 33 Degrees 45 min. North Lat . . . Lond. 1664. 34 p.

Repr. in v. 4 of Force's Hist. Tracts.

Repr. in S. C. Hist. Coll.

Also repr. in City of Charleston. Year Book. 1884. & Courtenay's "Genesis of S. C." See also SABIN, v. 8, p. 298.

1666 ALSOP, George. The character of the province of Maryland . . . 1666.

Repr. in Narratives of early Maryland, 1633–1684; ed. by C. C. Hall. 1910. p. 340–87. (In Original narratives of early American history) p. 343–48. See also SABIN, v. 1, p. 119.

HORNE, Robert. A briefe description of the province of Carolina. Lond. 1666.

Repr. in 1911, p. 66–73. (In Original narratives of early American history)

1667 ROYAL SOCIETY OF LONDON. Inquiries for Virginia and the Bermudas. (In its Philos. Trans. v. 2, p. 420–21, 1667)

1670 * CLARKE, Samuel. . . . A true and faithful account of the four chiefest plantations of the English in America, to wit: of Virginia,

New England, Bermudas, Barbados, with the temperature of the air, the nature of the soil, the rivers, mountains, beasts, fowls, birds, fishes, trees, plants, fruits, etc., as also of the natives of Virginia, and New England, their religion, customs, fishing . . . London, 1670–71. 85 p. folio.

1670 DENTON, Daniel. A brief description of New-York; formerly called New-Netherlands. With the places thereunto adjoining. Together with the manner of its scituation, fertility of the soyle, healthfulness of the climate, and the commodities thence produced . . . Lond. Printed for John Hancock . . . 1670. 2 p. l. 21 p.

Repr., & ed. with notes by Gabriel Furman. N. Y. 1845. 17 + [2] + 57 p. facsim. (Gowan's Bibliotheca Americana. 1)

See also Felix Neumann's "Brief . . . ", bibliographical essay. 1902. In Pub. Wkly. v. 61, May 24 & Je. 14.

Also repr. in Pa. Hist. Soc. Phila. 1848. 16 p. (In Bull. v. 1) Repr. Cleveland, Burrows, 1902. 63 p. facsim. (Bibl. Introd. by Felix Neumann) See also SABIN, v. 5, p. 350.

WINTHROP, John. . . . Concerning some natural curiosities of those parts of Connecticut, especially a strange and curious fish, sent for the repository of the Royal Society. (In Philos. Trans. v. 5, p. 1151–53. 1670)

Abstr. in Abridg. ed. 1749. v 3, p. 564–65; & 1809 ed., v. 1, p. 421–23.

1672 * DENYS, Nicolas. Description geographique des costes del' Amerique Septentrionale avec l'histoire naturelle du Pais . . . Paris, chez Louis Billaine, 1672. 2v. map. v. 1, 16 + 267 p.; v. 2, 486 + 3 p.

Transl. & ed. with memoir of author, by W. F. Ganong. Toronto, Champlain Society, 1908. 16 + 625 p. Illus. pl. Maps. (Pub. no. 11.) Deals chiefly with Nova Scotia.

See also SABIN, v. 5, p. 350–51.

* HUGHES, William. The American physitian; or, A treatise of the roots, plants, trees, shrubs, fruit, herbs growing in the English plantations in America, etc. London, Printed by J. C. for W. Crook, 1672. 14 + 159 p.

* JOSSELYN, John. New-Englands rarities discovered: in birds, beasts, fishes, serpents, and plants of that country . . . London, Printed for G. Widdowes, 1672. 114 p. illus. pl. 2d. ed. 1675.

Repr. with introduction and notes, ed. by Edward TUCKERMAN in (Amer. Antiq. Soc. Archaeologia Americana. Trans. & Coll. v. 4, p. 105–238. 1860.) Repr., Bost. W. Veazie, 1865. 8 + 169 p.

Rev. by J. L. Russell in Essex Inst. Proc. v. 2, p. 94–115, Jan. 9, 1857; & in Mag. Hort. & Bot. v. 24, p. 113–22, 168–76, 208–12, 1858.

See also Felter, H. W. J. J. (In Lloyd Library. Bull. no. 26 (Reprod. ser. no. 8). 64 p. 1927.)
Plants (ed. 1672), p. 41–91 illus; ed. 1860, p. 115–37; ed. 1865, p. 80–148, illus.
See also COUES (1), pt. 1, p. 574 and SABIN, v. 9, p. 341.

1674 ————. An account of two Voyages to New-England Wherein you have the setting out of a ship, with the charges; the prices of all necessaries for furnishing a planter and his family at his first coming, a description of the countrey, natives and creatures, with their Merchantil and Physical use; the government of the countrey as it is now possessed by the English . . . a large chronological table of the most remarkable passages, from the first discovery of the Continent of America, to the year 1673. London, Printed for G. Widdowes, 1674. [1], 1–279+3 p.
Repr. in Mass. Hist. Soc. Coll. ser. 3, v. 3, p. 211–396. 1833.
Repr., Bost. W. Veazie, 1865. 211 p.
See also Lloyd Library. Bull. no. 26. 64 p. 1927. (Reprod. ser. no. 8.)
Plants in 1674 edition on p. 59–81. Birds, p. 95–103.
See also COUES (1), pt. 1, p. 575, & SABIN, v. 9, p. 340.

1676 GLOVER, Thomas. An account of Virginia, its situation, temperature, productions, inhabitants, and their manner of planting and ordering tobacco . . . (In Philos. Trans. v. 11, p. 623–36. 1676)
Abstr. in Abridg. ed., 1749. v. 3, p. 566–75, 1749; 1809 ed., v. 2, p. 301–5.
Repr. Oxford, 1904. 31 p. See also COUES (1), pt. 1, p. 575.

1678 WINTHROP, John. The description, culture and use of maize. (In Philos. Trans. v. 12, p. 1065–69. 1678)
Abstr. in Abridg. ed., 1749, v. 2, p. 633–37; & in 1809 ed., v. 2, p. 466–69.

1682 * ASH[E], Thomas. Carolina; or, A description of the present state of that country, and of the natural excellencies thereof . . . Lond. T. A. Gent, 1682. [2]+40 p.
Repr. in Narratives of early Carolina, 1650–1708; ed. by A. S. Salley, Jr., 1911. p. 138–59. (In Original narratives of early American History.)
Also in CARROLL, B. B. Hist. Coll. S. C. to 1776. N. Y. 1836. 2 v. (v. 1, p. 59–84.) See also SABIN, v. 1, p. 289–90.

WILSON, Samuel. An account of the province of Carolina, in America . . . Lond. Francis Smith, 1682.
Repr. in Narratives of early Carolina, 1650–1708; ed. by A. S. Salley, Jr., 1911. p. 164–76. (In Original narratives of early American History.)

1683 PASCHALL, Thomas. Letter . . . describing Pennsilvania. 1683.
Repr. in Narratives of early Pa., West., N. J., & Delaware. 1912. p. 250–54. (In Original narratives of early American History.)

PENN, William. Letter from . . . to the Committee of the Free Society of Trades, on Pennsylvania. 1683.
Repr. in Early narratives of Pa., West N. J., & Delaware. 1912. p. 224–44. (In Original narratives of early American History.)
Natural history, p. 228–29. See also SABIN, v. 14, p. 318.

* HENNEPIN, Louis. Description de la Louisiane nouvellement decouverte au Sud Ouest de la Nouvelle France . . . Paris, 1683. 6 + 312 + 107 p. map.
Numerous ed. pub. See Bibliography by V. H. Paltsits in "New Discovery" ed. by R. G. Thwaites. 1903. 2 v.
Rev. in Royal Soc. London. Philos. Trans. v. 15, p. 980–81. 1685. Also in Abridged ed., v. 3, p. 153. 1809. See below (1698), for English ed., etc. See also SABIN, v. 8, p. 211–18.

1685 BUDD, Thomas. Good order established in Pennsylvania and New Jersey in America, being a true account of the country; with its produce and commodities there made . . . [Lond.] 1865. 39 + [1] p.
New ed., notes by Edward Armstrong. N. Y. 1865. 111 p. 4°. (Gowan's Bibliotheca Americana. v. 4.) See also SABIN, v. 3, p. 84.

PENN, William. A further account of the province of Pennsylvania. 1685.
Repr. in Narratives of early Pa., West N. J., & Delaware. 1912. p. 259–78. (In Original narratives of early American History.)
Natural history, p. 264–66. See also SABIN, v. 14, p, 318.

1687 * BLOME, Richard. The present state of his Majesties' isles and territories in America . . . Lond. Printed by H. Clark, for Dozman Newman, 1687. 262 + [36] p. pl. maps.
N. J., p. 78–87; Pa., p. 88–133; Carolina, p. 150–82; Va., p. 182–95; Maryland, p. 195–201; N. Y. p. 201–9; New England, p. 210–38. See also SABIN, v. 2, p. 234.

1688 BANISTER, John. E catalogo huc transmisso anno 1680, quem composuit eruditissimus Vir & consummatissimus botanicus D. Johannes Banister plantarum a seispo in Virginia observatorum. (In RAY, John. Historiae plantarum . . . 1688. v. 2, p. 1926–28)
Also in 2d ed. 1693.
Repr. & ed. by Ivar Tidestrom. "Banister's catalogue of Virginia plants." Wash., D. C., 1907. 16 p.

1692 * FRAME, Richard. A short description of Pennsilvania; or, A relation of what things are known, enjoyed, and like to be discov-

ered in the said province . . . Phila. William Bradford, 1692. 16 p. 4°.

In verse. Repr. by S. J. Hamilton, from copy in Phila. Library Co. [Phila.], Oakwood press, 1867. 1 p. viii, 8 p. 26 cm.

1694 BANISTER, John. The extracts of four letters from . . . to Dr Lister . . . on the natural history of Virginia (In Philos. Trans. v. 17, p. 667–72. 1694.)

Written May 5, 1688, April 19, 1689, August 2, 1690, and May 12, 1692.

See also Abridg. ed. 1809, v. 3, p. 515, for Abstract.

CLAYTON, John. Letters . . . giving an account of several observables in Virginia, in his voyage thither . . . (In Philos. Trans. v. 17, p. 781–95, 941–48, 978–99. 1694; & v. 18, p. 121–35. 1695).

"Of the water"; "Of the earth & soil"; "Of the birds"; "Of the beasts."

Abstracts also in Abridg. ed. 1749. v. 3, p. 575–600; & ed. 1809. v. 3, p. 544–45, 588–89, 639.

Letters written to Society, May 12, 1688.

Repr. in (Force, Peter. Historical tracts. Wash. 1836–46. v. 3, no. 12. 45 p.) Also repr. in Miscellanea Curiosa. ed. by Ed. Halley. v. 3.

* GREW, Nehemiah. Musaeum Regalis Societatis; or A Catalogue and description of the natural and artificial rarities belonging to the Royal Society, and preserved at Gresham College, whereunto is subjoined the comparative anatomy of stomachs and guts . . . Lond. H. Newman, 1681–94. 386, 43 p. 31 pl. 4°.

Contains descriptions and figures of American animals.

1698 * HENNEPIN, Louis. A new discovery of a vast country in America, extending about 4000 miles, between New France and Mexico; with descriptions of the Great Lakes, cataracts, rivers, plants and animals . . . Lond. 1698. 2 v. in 1.

Translation of French original, see (1683), above.

Numerous ed. from this transl. For Bibliography of editions see Paltsits, V. H., in N. Y. J. G. Shea ed., 1880. pref. p. 45–64.

See also SABIN, v. 8, p. 211–18.

* SLOANE, Hans. Account of the tongue of a Pastinaca marina, frequent in the seas about Jamaica, and lately dug up in Maryland and England. (In Philos. Trans. v. 19, p. 674–76. 1698)

Abstracts in Abridg. ed. 1749. v 2, p. 431–32; & ed. 1809. v. 4, p. 200–1.

THOMAS, Gabriel. An historical and geographical account of the province, and country of Pensilvania, and of west New Jersey in

America, and the richness of the soil . . . the strange creatures, as birds, beasts, fishes . . . Lond. A. Baldwin, 1698. 8 + 55 + 11 + 34 p.
Repr. in Narratives of early Pennsylvania, west N. J., and Delaware. 1912. p. 313–52. (In Original narratives of early American history)

1699 BULLIVANT, Benjamin. Observations on natural history made in New England. (In Philos. Trans. v. 20, p. 167–68. 1699)
Abstract in Abridg. ed. 1809. v. 4, p. 267–68.

* PETIVER, James, and JONES, Hugh. Remarks . . . on some animals, plants . . . sent to James Petiver from Maryland, by the Rev. Hugh Jones. (In Philos. Trans. v. 20, p. 393–406. 1699)
Abstract in Abridg. ed. 1809. v. 4, p. 324–30.

1700 JONES, Hugh. Part of a letter to the Rev. Benjamin Woodroofe, concerning several observables in Maryland. (In Philos. Trans. v. 21, p. 436–42. 1700)
Written Jan. 23, 1698. Abstracts in Abridg. ed. 1749. v. 3, p. 600–3, & in ed. 1809, v. 4, p. 460–62.

1701 BANISTER, John, and * PETIVER, James. Some observations concerning insects made by John Banister in Virginia, A.D. 1680; with remarks on them by James Petiver. (In Philos. Trans. v. 22, p. 807–14. 1701)
Abstract in Abridg. ed. 1809. v. 4, p. 565–68. Enumerates 53 species.

1703 * LAHONTAN, Jean, baron de. Nouveaux voyages dans l'Amerique Septentrionale, qui contiennent une relation des differens peuples qui y habitent. La Haye, 1703. 2 v. illus. pl.
English ed. Lond. Printed for H. Bonwicke, T. Goodwin, M. Wotton, etc., 1703. 2 v. 23 maps & cuts. v. 1, p. 237–42, on Birds of U. S. & Canada. See also COUES (1), pt. 1, p. 576, & SABIN, v. 10, p. 27–32.

1705 [BEVERLY, Robert] The history and present state of Virginia . . . Lond. R. Parker, 1705. 4 pts. 14 pl. [6, 104, 40, 64, 83, 16, 2]. p.
2d ed. rev. & enl. Lond. 1722. [6] + 284 + [22] p. 14 pl. French ed. Paris, 1707. [6] + 417 + [18] p. 14 pl.
See also SABIN, v. 2, p. 125–27.

1706 * PETIVER, James. An account of animals and shells sent from Carolina . . . (In Philos. Trans. v. 24, p. 1952–60. 1706)
Abstract in Abridg. ed. 1809. v. 5, p. 209.

1707 ————. Herbarium Virginianum, or, An account of such Virginia plants, as J. Banister sent the designs of to the Bishop of

London. Lond. 1707. (In Memoirs for the Curious. p. 227–32)
Copy in Columbia University Library.

1709 * LAWSON, John. A new voyage to Carolina; containing the exact description and natural history of that country, together with the present state thereof. And a journal of a thousand miles, travel'd thro' several nations of Indians, giving a particular account of their customs, manners . . . London, 1709. 3 + 258 p. pl. map.
Also in (Stevens, John. A collection of voyages and travels. Lond. 1708. v. 1)
Reissued with title: "The history of Carolina . . . ". Lond. W. Taylor, 1714.
Copied without acknowledgment by John BRICKELL, in his "Natural History of North Carolina." 1737. (q. v.)
The Taylor, Lond. 1714 ed., repr. Raleigh, N. C., O. H. Perry & Co., printed by Strother & Marcom, 1860. 18, 19–390 p.
"History of N. C.", repr. Charlotte, N. C., 1903. 15, 171 p. map. (From Pres. Madison's copy in N. C. State Library.)
German ed., Hamburg, 1722. Another Lond. ed., 1718. [4] + 258 p. 1 pl.
See also COUES (1), pt. 1, p. 576–77, & SABIN, v. 10, p. 133.

1710 * PICOLO, F. M. An extract of a memoir concerning the discovery of a passage by land to California; with a map and description of that country . . . (In Philos. Trans. v. 26, p. 232–40. 1710)
Written Feb. 10, 1702, from Guadalaxara, Mexico.
Abstracts in Abridg. ed. 1749. v. 5, pt. 2, p. 191–96; & ed. 1809. v. 5, p. 458–61.

1712 BUSSIERE, Paul. Anatomical description of the heart of the American land tortoise. (In Philos. Trans. v. 27, p. 170–85, illus. 1712)
Abstracts in Abridg. ed. 1749. v. 5, p. 74–82, 1 pl. & ed. 1809. v. 5, p. 598–605.

1717 MATHER, Cotton. . . . On some plants and animals of America . . . in letters . . . (In Philos. Trans. v. 29, p. 62–71. 1717)
Written Nov. 1712. Abstracts also in Abridg. ed., 1749. v. 5, pt. 2, p. 159–62; & ed. 1809. v. 6, p. 85–8.

1722 COXE, Daniel. A description of the English province of Carolina, by the Spaniards called Florida, and by the French la Louisane. Lond. 1722. 122 p. maps.
Repr. in French, B. F. Hist. Coll. La. v. 2, p. 221–76. 1850.
See also SABIN, v. 5, p. 46–8.

1723 DUDLEY, Paul. A description of the moose deer in America. (In Philos. Trans. v. 31, p. 165–68. 1723)

Abstracts also in Abridg. ed. 1734. v. 7, p. 447–49; & in 1809 ed. v. 6, p. 515–17.

————. Account of the poyson-tree in New England. (In Philos. Trans. v. 31, p. 145–46. 1723)

Abstract also in Abridg. ed. 1734. v. 6, p. 307–8; (pt. 2) & in 1809 ed. v. 6, p. 507–8.

————. An account of a method lately found out in New England for discovering where the bees hive in the woods in order to get their honey. (In Philos. Trans. v. 31, p. 148–50. 1723)

Abstracts also in Abridg. ed. 1734. v. 7, p. 403–7; & in 1809 ed., v. 6, p. 508–9.

————. An account of the rattlesnake . . . (In Philos. Trans. v. 32, p. 292–95. 1723)

Written Roxbury, Mass., Oct. 25, 1722. Abstracts also in Abridg. ed. 1734. v. 7, p. 410–12 & in 1809 ed., v. 6, p. 642–43.

* SHERARD, William. A further account of the same tree. (In Philos. Trans. v. 31, p. 147–48. 1723)

Abstract in 1809 ed., v. 6, p. 508–9; also in 1734 ed., v. 6, pt. 2, p. 308–9.

1724 DUDLEY, Paul, and * BORASSAW, M. Account of the Falls of the river Niagara, Oct. 10, 1721, from Monsieur Borassaw, a French native of Canada. (In Philos. Trans. v. 32, p. 69–72. 1724)

Abstracts also in Abridg. ed., 1734. v. 6, pt. 2, p. 173–74; & in 1809 ed., v. 6, p. 574–76.

* HESSELIUS, Andreas. Observations of . . . on the natural history of Delaware during the years 1711–1724. 1724. (In Cassinia. v. 22, p. 6–18. 1918)

1725 DUDLEY, Paul. An essay upon the natural history of whales, with a particular account of the ambergris found in the Sperma ceti of the whale . . . in a letter to the publisher . . . (In Philos. Trans. v. 33, p. 256–69, pl. 1725)

Abstracts also in Abridg. ed 1734. v. 7, p. 424–31, pl. & in 1809 ed., v. 7, p. 78–84.

————. Observations on some of the plants in New England with remarkable instances of the nature and power of vegetation . . . (In Philos. Trans. v. 33, p. 194–200. 1725)

1728 * LAVAL, A. F. Voyage de la Louisiane . . . dans lequel sont traitees diverses matieres de physique, astronomie, geographie et marine . . . Paris, J. Mariette, 1728. 24 + 304 + 96 + 191 + 9 p. illus. pl. maps. diagr. 4°.

See also SABIN, v. 10, p. 113.

1729 COLMAN, Benjamin. . . . Account of an earthquake at Boston, in New England, Oct. 9, 1727. (In Philos. Trans. v. 36, p. 124–27. 1729)

Abstracts also in Abridg. ed 1734. v. 6, pt. 2, p. 201–2; & in 1809 ed., v. 7, p. 348.

Written Sept. 5, 1728.

*MORTIMER, Cromwell. Account of Catesby's essay towards the natural history of Carolina and the Bahama Islands, with extracts. (In Philos. Trans. v. 36, p. 425–34, 1729; v. 37, p. 174–78, 447–50, 1733; v. 38, p. 315–18, 1735; v. 39, p. 112–17, 251–58, 1738; v. 40, p. 343–50, 1741; v. 44, p. 599–608, 1748; v. 45, p. 157–73. 1750)

See 1731 for Catesby's "Natural History of North Carolina."

1731 *CATESBY, Mark. The natural history of Carolina, Florida and the Bahama Islands: containing the figures of birds, beasts, fishes, serpents, insects and plants: particularly the forest-trees, shrubs, and other plants, not hitherto described, or very incorrectly figured by authors, together with their descriptions in English and French. To which, are added observations on the air, soil and waters; with remarks upon agriculture, grain, pulse, roots, etc. To the whole is prefixed a new and correct map of the countries treated of. . . Histoire naturelle de la Caroline, la Floride, & les Isles Bahama: contenant les desseins des oisseaux, animaux, poissons, serpents, insects & plantes. Et en particulier, des arbres des forets, arbrisseaux, & autres plants, qui n' ont point été decrits, jusques a present par les auteurs, ou plu exactement dessinés. Avec leur descriptions en francois & en anglois. A quoi a adjoute, des observations sur l' air, le sol, & les eaux, avec des rémarques sur l' agriculture, les grains, les legumes, les racines, etc. Le tout est precede d' une carte nouvelle & exacte des pais dont ils s' agist . . . Histoire de la Caroline . . . London. Printed at the expense of the author, 1731–43. 2 v. 220 col. pl. map. Folio. (51 1/2 cm).

v. 1, 1731, xii, 100 p., 100 col. pl.

v. 2, 1743, [6], 100, xliv, [6], 20 p. 120 col. pl. map.

First edition, the English and French in parallel columns. v. 2, pl. 59 wrongly numbered 56; pl. 61 unnumbered; pl. 80 numbered 62; appx. pl. 3, 7, 9 unnumbered. Contains a Supplement: An account of Carolina and the Bahama Islands. Relation de la Carolina, et des Isles de Bahama. xliv, 20 p. 20 col. pl.

For a bibliography of the editions of Catesby, see Barnhart, J. H., in Britton & Millspaugh, Bahama Flora. N. Y. 1920. p. 657.

See also Jordan, D. S. An identification of the figures of fishes in

Catesby's "Natural History of Carolina. . .". Wash. 1885. (In U. S. Nat. Mus. Proc. v. 7, p. 190–99.)
See also above, 1729: MORTIMER.

English editions: London, Printed for C. Marsh, 1754. 2 v. 220 col. pl. col. map. folio. (53 cm). 3rd ed. rev. by G. Edwards. Lond. 1754. v. 1 [4], viii, 120 p. 120 pl. map. v. 2 [4], 100, xliv, [6] p. 100 pl. (In English & French.) London, Printed for B. White, 1771. 2 v. 220 col. pl. col. map. 54 cm.
German editions: (Latin & German in parallel columns). Norimbergae, J. J. Fleischmann, 1750. 100 p. 100 col. pl. (transl. by N. F. Eisenberger & George Lichtensteger). Nuremberg, 1755. 62 p. fold. map. (Transl. by George L. Huth)
Nuremberg, Seligmann, 1770. 86 p. map.

Nuremberg, J. M. Seligmann, 1777. (Latin & German). [iv], 100, 10 + [8] p. 109 col. pl.
See also COUES (1), pt. 1, p. 577, 583–84 & SABIN, v. 3, p. 432–33.

1733 BYRD, William. History of the dividing line, and his journey to the land of Eden . . . 1733.
Another ed. Petersburg, Va., Ruffin, 1841. 143 p. Numerous ed. of Byrd's work pub. See also ed. Richmond, Va., 1866. 2 v. Writings of Col. W. B. N. Y. Doubleday, 1901. 88, 461 p. pl. port.

*[LAWSON]. An abstract of several sorts of trees, shrubs, etc., which, growing in the remotest parts of North America will undoubtedly prosper well in all parts of Great Britain; to which is prefixed a short essay concerning the easy and profitable propagation of them in our English nurseries. Lond. 1733. (In the Practical husbandman & planter . . . v. 1, no. 2, p. 73–112)

1735 LEWIS, Richard. A letter containing the account of a remarkable generation of insects; of an earthquake and of an explosion in the air. (In Philos. Trans. v. 38, p. 119–21. 1735)
Written Annapolis, Md., Oct. 27, 1732. Abstracts in Abridg. ed., 1747. v. 8, p. 685, & v. 9, p. 1–2, & in 1809 ed., v. 7, p. 614–15.

1737 *BRICKELL, John. The natural history of North Carolina, with an account of the trade, manners and customs of the Christian and Indian inhabitants, illustrated with copper plates whereon are carefully engraved the map of the country, several strange beasts, birds, fishes, snakes, insects, trees, plants, etc. Dublin, Carson, 1737. xv, 408, [1] p. pl. fold. map. 4°.
"An almost verbal transcript of LAWSON, John. A new voyage to Carolina . . . " (1709), q. v.
Repr. Raleigh, N. C., 1911. 2 p. l, xiv, 417 (1) p. 4 pl. map. (By the trustees of the Public Libraries.)
See also COUES (1), pt. 1, p. 577–78, & SABIN, v. 2, p. 466.

See also WEISS, H. B. N. Y. Ent. Soc. Jour. v. 36, p. 185–88. Je. 1928.

1738 DALE, Samuel. A letter . . . to Sir Hans Sloane . . . containing descriptions of the mosse-deer of New England, and a sort of stag in Virginia, with some remarks relating to Mr. Ray's Description of the flying squirrel of America. (In Philos. Trans. v. 39, p. 384–89. 1738)

Abstract in Abridg. ed., 1809. v. 8, p. 102–5; & in 1747 ed., v. 9, p. 78; 84–7.

DUDLEY, Paul. An account of the several earthquakes which have happened in New England since the first settlement of the English in that country, especially of the last, which happened in October 29, 1727. (In Philos. Trans. v. 39, p. 63–73. 1738)

Abstracts in Abridg. ed., v. 8, p. 685–90, 1747; & in 1809 ed., v. 8, p. 22–4.

LOGAN, James. Some experiments concerning the impregnation of the seeds of plants . . . in a letter to Peter Collinson. (In Philos. Trans. v. 39, (1735–36), p. 192–95. 1738)

Abstracts in Abridg. ed., v. 8, p. 804–6, 1747; & ed. 1809, v. 8, p. 57–8.

Written Nov. 20, 1735.

Repr. in Physicalische Belustigungen ed. by Von Mylius, Berlin, 1757. v. 3, p. 1088–1102.

1739 *GRONOVIUS, J. F., and CLAYTON, John. Flora Virginica; exhibens plantae quas V. C. Johannes Clayton in Virginia observavit atque collegit, easdem methodo sexuali disposuit ad genera propria retulit, nominibus specificis insignivit et minus cognitas descripsit J. F. Gronovius. Lugduni Batavorum, [1739]–43. 2 pts. in 1 v. [4] + 206 + [16] p. 4°.

Another ed. Flora Virginica . . . quas nobilissimus vir Johannes Claytoniis in Virginia crescentes observavit, collegit et obtulit Joh. Fred. Gronovio cujus studio et opera descriptae et in ordinem sexualem systematicum redactae sisuntar. Lugduni Batavorum, 1762. [10] + 176 + [8] p. map. 4°.

See Britten, James. Flora Virginica. (In Jour. Bot. v. 36, p. 264–67. 1898)

LOGAN, James. Experimenta et meletemata de plantarum generatione nec non canonum pro inveniendis refractionum, tum simplicium, tum in lentibus, duplicium focis demonstrationes geometricae. Lugduni Batavorum, 1739. 32 p. 3 pl.

English transl. by John Fothergill. Lond. C. Davis, 1747. viii, 39 p. Latin & English on opposite pages.

1741 ANON. A description of Georgia by a gentleman who has resided there upwards of seven years and was one of the first settlers. Lond. 1741. 6 p.

Repr. in (FORCE, Peter. Historical tracts. 1838. v. 2, no. 12)

1742 MITCHELL, Jo[hn]. Dissertatio brevis de principis botanicorum et zoologorum, deque novo stabiliendo naturae rerum congruo, cum Appendice aliquot generum plantarum recens conditorum et in Virginia observatorum. (In Acta Acad. Nat. Curios. v. 8, appx. p. 187–224. 1742)

Repr. Norimbergae, Wolfgangi Schwarzkopfii, 1769. 46 p.

1744 BARTRAM, John. . . . Concerning a cluster of small teeth observed by him at the root of each fang or great tooth in the head of a rattlesnake, upon dissecting it. (In Philos. Trans. v. 41, p. 358–59. 1744)

Written July 17, 1734. Abstracts in Abridg. ed. 1747, v. 9, p. 60; & ed. 1809, v. 8, p. 409.

*CHARLEVOIX, P. F. X. de. Histoire et description generale de la Nouvelle France, avec le Journal historique d'un voyage fait par ordre du roi dans L'Amerique Septentrionale . . . Paris, Chez Rollin fils, 1744. 6 v. 44 pl. 26 maps, 2 plans, front.

English ed. Lond., R. & J. Dodsley, 1761. 2 v. illus. map. Transl. of v. 3 only.

Description of plants, v. 2, p. 1–56, 22 pl.; v. 4, p. 299–377, 44 pl. Birds in v. 3.

Transl. with notes by John G. Shea. N. Y. Shea, 1866–72. 6 v. illus. pl. port. plans, maps, facsim.

Another ed., with a memoir of Shea, by Noah F. Morrison. N. Y. F. P. Harper, 1900. 6 v.

See also COUES, (1), pt. 1, 578, 582, and SABIN, v. 3, p. 520–22.

CLAYTON, John. A letter . . . to Dr. Grew in answer to several queries relating to Virginia, sent to him by that gentleman, A. D. 1687. (In Philos. Trans. v. 41, p. 143–62. 1744)

Abstracts also in Abridg. ed. 1747. v. 9, p. 465–75; & ed. 1809, v. 8, p. 328–335. (303!)

MOORE, Francis. A voyage to Georgia begun in the year 1735, containing an account of the settling of the town of Frederica in the southern part of the province and a description of the soil, air, birds, beasts, trees, rivers, islands . . . Lond. Jacob Robinson, 1744. [2], 108, [2] p.

See also SABIN, v. 12, p. 336.

1746 BARTRAM, John. . . . Containing some observations concerning the salt-marsh muscle, the oyster-banks, and the freshwater muscle of Pennsylvania. (In Philos. Trans. v. 43, p. 157–59. 1746)

Rd before Society, Nov. 8, 1744. Abstract in Abridg. ed. 1809. v. 9, p. 70–1. & 1756 ed. v. 10, p. 860–61.

————. On some very curious wasps' nests made of clay in Pensilvania. (In Philos. Trans. v. 43, p. 363–66, illus. 1746)

Rd April 25, 1745. Abstracts also in Abridg. ed. 1756. v. 10, p. 847–48, illus.; & ed. 1809. v. 9, p. 123–24

1749 COLDEN, Cadwallader. Plantae Coldenghamiae in provincia Noveboracensi Americes sponte crescentes, quas ad methodum Linnaei sexualem, anno 1742 etc., observavit et descripsit. (In Societatis regiae scientiarum Upsaliensis. Acta. 1749–51. v. 4, p. 81–136; & v. 5, p. 47–82)

KALM, Pehr. [Papers on natural history . . .] (In Kongl. Vetenskaps Academiens. Handlingar. v. 10–39. Stockholm, 1749–1778) (Titles and text in Swedish).

This list was prepared by Mr. Kenneth K. Mackenzie of Maplewood, N. J. The English titles which have been given below were translated by Mr. Mackenzie and Mr. Jules Dieserud of the Library of Congress.

v. 10,	p.	70– 5	1749	On N. A. trees and grasses.
11,	p.	280–90	1750	Lobelia as a sure remedy against venereal diseases.
12,	p.	143–59	1751	Sugar yielding plants of N. A.
	p.	190–96		Spruce-beer.
	p.	305–18		Description of maize.
13,	p.	24–43	1752	" "
	p.	145–55		Aurora borealis.
	p.	308–19		N. A. rattlesnake and remedies.
14,	p.	52–67	1753	" " " (cont.)
	p.	185–94		" " " (concl.)
15,	p.	19–31	1754	Flying insects (ticks).
17,	p.	101–16	1756	Grasshoppers.
20,			1759	Passenger pigeon. transl. in Anh. v. 28, Jan. 1911. & Smith. Inst. Ann. Rept. for 1911. Wash. 1912. p. 407–17.
22,	p.	19–41	1761	Effect of temperature on plants.
		129–43		" " "
25,	p.	124–39	1764	Fruit parasites.
28,	p.	51–64	1767	Black walnut.
30,	p.	119–27	1769	White walnut.
32,	p.	52– 9	1771	Temperature on ocean & inland waters.
34,	p.	343–49	1773	Hawthorns.
37,	p.	143–63	1776	Mulberry tree (Morus rubra).
39,	p.	262–83	1778	Hickories.

1750 BARTRAM, John. A description of the great black wasp, from Pennsylvania. (In Philos. Trans. v. 46, p. 278–79. 1750)

Rd before Society, Dec. 21, 1749. Abstract in Abridg. ed. 1809. v. 9, p. 699 & 1756 ed. v. 10, p. 848–49.

————. 1) Some observations on the dragon fly . . . 2) A further account of the Libellae, or May-flies . . . (In Philos. Trans. v. 46, p. 323–25; p. 400–2. 1750)

Rd Feb. 1 & April 5, 1750. Abstracts in Abridg. ed. 1809. v. 10, p. 4–5, 28. & ed. 1756. v. 10, p. 845–47.

1751 BARTRAM, John. Observations on the inhabitants, climate, soil, rivers, productions, animals, and other matters worthy of notice, made by . . . in his travels from Pensilvania to Onondago, Oswego, and the Lake Ontario, in Canada; to which is annex'd, a curious account of the cataracts of Niagara, by Mr. Peter KALM . . . Lond. Printed for J. Whiston & B. White, 1751. 94 p. front. (map).

KALM'S Letter, p. 79–94.

See also Jour. Botany. v. 44, p. 213–14. 1906. By James Britten.

*SHORT, T[homas], and BARTRAM, John. Medica Britannica; or, Treasure of such physical plants as are generally to be found in the fields or gardens of Great Britain . . . to which is added an appendix, containing the true preparation, preservation, uses, doses of most forms of remedies necessary for private families; by T. Short; with a preface by Mr. John Bartram, and his notes throughout the work, showing the places where many of the described plants are to be found in these parts of America, their differences in name, appearance and virtue from those of the same kind in Europe, and an appendix containing a description of a number of plants peculiar to America, their uses, virtues, etc.; 3d ed. Phila. Printed and sold by B. Franklin, 1751. 20 + 339 + 40 + [7] p.

Preface, p. 17–20 & last appendix, 7 p., are by John BARTRAM. First ed. by SHORT, Lond. 1746. 32 + 352 p.

*KALM, Pehr. En kårt berättelse om naturliga, Stället, nytton, samt skötseln af några wäxter ntaf hwilka frön nyligen blifwit hembragte från Norra America til deras tienst som hatwa nöje, at it wårt climat gora försök de sammas cultiverande. Stockholm, 1751. 48 p. no title-page (colophon).

1753 HARRISON, John. Two letters . . . to Peter Collinson, concerning a small species of wasps. (In Philos. Trans. v. 47, p. 184–87. 1753)

Rd May 9, 1751. Written July 29 & Dec. 22, 1748, from Cambridge, Mass. Abstract in Abridg. ed. 1809. v. 10, p. 182–84.

*KALM, Pehr. En rêsa til Norra America, på Kongl. Swenska Wetenskaps Academiens befallnung, och publici kostnad, forrottad af Pehr Kalm . . . Stockholm, Tryckt på L. Salvii kostnad, 1753–61. 3 v. illus. pl.

v. 1, 1753, [22] + 484 + [20] p.
v. 2, 1756, 526 + [22] p.
v. 3, 1761, 538 + [14] p.

German ed., & transl. by J. A. & J. F. Murray. Gottingen, 1754–64. 3 v. 8 pl.

English ed., transl. by J. R. Forster. Lond. 1770–71. 3 v. (2d ed. 1772). Entitled: "Travels into North America; containing its natural history and a circumstantial account of its plantations and agriculture in general . . . "

Dutch ed., Utrecht, 1772. 2 v. Repr. (in Pinkerton, J. A. A general collection of voyages . . . 1812. v. 13, p. 374–700, pl.) Repr. from 2d Lond. ed.

Canadian ed., transl. by L. W. Marchand. Montreal, Berthiaume, 1880. 2 v. (In Soc. Historique de Montreal. Mem. v. 7–8)

See also: Strohm, A. J. English translation of Dedication and Preface of Peter Kalm's Travels. (In Pennsylvania Mag. Hist. & Biog. v. 36, p. 17–29. 1912)

See also Essex Inst. Bull. v. 20, p. 90–100. 1888. (Fishes in K., by Samuel Garman.)

See also Pop. Sc. Mthly. v. 71, p. 413–19, 1907. (Spencer Trotter.)

See also v. 1, p. 200, KALM.

See also COUES (1), pt. 1, p. 580–81, 583, 584–85 & SABIN, v. 9, p. 382–83.

1755 EVANS, Lewis. Geographical, historical, political and mechanical essays . . Phila. Franklin & Hall, 1755. iv, 32 p.

Map 27½ × 20½ in.

See SABIN, v. 6, p. 272.

1756 COLDEN, Jane. The description of a new plant, by Alexander GARDEN; essays and observations, physical and literary. (In Philos. Soc. Edinburgh. v. 2, p. 1–7. 1756)

1757 *VENEGAS, Miguel. Noticia de la California . . . Madrid, 1757. 3 v. 4 maps. 4°.

English transl.: A natural and civil history of California, containing an accurate description of that country, its soil, mountains, harbours, lakes, rivers and seas, its animals, vegetables, minerals, and famous fishery for pearls; the customs of the inhabitants. . . . Lond. Rivington & Fletcher, 1759. 2 v. illus. pl. map.

Vegetable products, v. 1, p. 41–6.

French transl. Paris, 1767. 3 v. map.

1758 *LE PAGE DU PRATZ. Histoire de la Louisiane, contenant la découverte de ce vaste pays; sa description géographique; un voy-

age dans les terres; l' histoire naturelle . . . Paris, De Bure, l'aîne, 1758. 3 v. pl. maps, fold. plan. [42 pl. in all].

v. 1, xvi, 358 p. maps & pl.
v. 2, [4], 441 p. pl.
v. 3, [4], 451+[5] p. pl.
Botany, v. 2, p. 15–65.
Ornithology, v. 2, p. 109–43.
English transl. Lond. 1763. 2 v. v. 1, 2 p. ll., i–viii, i–l, 1–368, map. v. 2, 4 p. ll, 1–272 p. map.
Another ed. Lond. 1774. [8]+36+387 p. 2 maps.
Another ed. Newbern, [N. C.] Franklin & Garrow, 1804. [4], 272, cxviii, [2] p.
See also COUES (1), pt. 1, p. 581–82, 585, & SABIN, v. 10, p. 223–24.

WINTHROP, John. An account of the earthquake felt in New England and the neighboring parts of America, Nov. 18, 1755. (In Philos. Trans. v. 50, p. 1–18. 1758)

Rd Jan. 13, 1757. Abstract in Abridg. ed. 1809. v. 11, p. 62–6.

1759 *ACRELIUS, Israel. Beskrifning om de swenska fersamlingars forma och nerwarande tilstand, utidet sa kallade Nya Swerige, sedan Nya Nederland, men nu for tiden Pensylvanien, samt nastliggande orter wid alfwen (!) De la Ware, Wast-Yersey, och New-Castle county uti Norra America. Stockholm, Harberg & Hesselberg, 1759. 10 p., 1,533, [1] p .

Paging irregular, no. 171, 174, 448, 450–78 omitted; no. 193–94 duplicated. Library of Congress cards.
Transl. in part by Nicholas COLLIN. (In N. Y. Hist. Soc. Coll. 2d ser. v. 1, p. [401]–48. 1841)
Transl. by W. M. Reynolds. (In Hist. Soc. Pa. Mem. v. 11, L, 17–468 p. 1874)
See also SABIN, v. 1, p. 20.

1760 *ELLIS, John. An account of the plants Halesia and Gardenia, in a letter from . . . to Philip Carteret Webb. (In Philos. Trans. v. 51, p. 929–35, pl. 1760)

Alexander GARDEN'S Account of the flower, p. 930–31. Abstract in Abridg. ed. 1809. v. 11, p. 508–9

HUTCHINS, Thomas. Western Pennsylvania in 1760; a journal of a march from Fort Pitt to Venango, and from thence to Presqu' Isle. (In Pa. Mag. Hist. & Biog. v. 2, p. 149–53. 1878)

1762 *ELLIS, John. An account of the male and female cochineal insects that breed on the cactus opuntia, or Indian fig, in South Carolina and Georgia . . . in a letter to Peter Wych. (In Philos. Trans. v. 52, p. 661–67, illus. 1762)

Sent by Alexander GARDEN. Abstract also in Abridg. ed. 1809. v. 11, p. 674–76.

1763 *CATESBY, Mark. Hortus Britanno-Americanus; or, A curious collection of trees and shrubs, the produce of the British colonies in North America; adapted to the soil and climate of England, with observations on their constitution, growth and culture . . . Lond. John Ryall, 1763. [6] + 41 p. 17 pl. folio.

Another ed. Lond. 1767, entitled:

"Hortus Europae-Americanus; or, A collection of 85 curious trees and shrubs, the produce of North America, adapted to the climates and soils of Great Britain, Ireland and most parts of Europe . . . together with their blossoms, fruits and seeds, observations on their culture, growth, constitution and virtues. . ."

Lond. J. Millan, [2] + 6 + 41 p. 17 pl. (63 fig.) 4°. 1767.

See also SABIN, v. 3, p. 432.

*KALM, Pehr. Norra Amerikaniska färge-örter . . . under . . . Abo, E. Hollberg, [1763]. 8 p.

A dissertation.

1764 BARTRAM, John. Observations made . . . at Pensilvania, on the yellowish wasp of that country . . . (In Philos. Trans. v. 53, p. 37–8. 1764)

Rd Feb. 24, 1763 Abstract in Abridg. ed. 1809. v. 11, p. 685–86.

————. [Seven autograph letters to John Fothergill. 1764–71]. In the Library of the British Mus. Nat. Hist.

*ELLIS, John. An account of the sea pen or Pennatula phosphorens of Linnaeus, likewise a description of a new species of sea pen on the coast of South Carolina, with observations on sea pens in general. (In Philos. Trans. v. 53, p. 419–35, 3 pl. 1764)

Rd. Dec. 22, 1763. Abstract in Abrig. ed. 1809. v. 12, p. 41–4.

1765 *COLLINSON, Peter. Some observations on the Cicada or locust of North America. (In Philos. Trans. v. 54, p. 65–8, 1 pl. 1765)

Rd Feb. 23, 1764. Abstract in Abridg. ed. 1809. v. 12, p. 100–2.

SMITH, Samuel. The history of the colony of Nova-Caesaria or New-Jersey . . . to the year 1721 . . . Burlington, N. J., 1765. 10 + 573 p.

2d ed. Burlington, [c1877], 14 + 602 p. 2 maps.

1767 [*STORK, William and BARTRAM, John.] An account of East-Florida, with a journal, kept by John Bartram, upon a journey from St. Augustine up the river St. John's, by William Stork. Lond. [1767]. [4] + 90 + 8 + 70 p.

3d ed. Lond. 1769. 8 + 40 + 12 + 35 p. 3 maps. 4°.

1768 *BOSSU, J. B. Nouveaux voyages aux Indes Occidentales; contenant une relation des differens peuples qui habitent les environs du grand fleuve Saint-Louis, appellé vulgairement le Mississippi; leur religion; leur gouvernement; leurs moeurs; leurs guerres & leur commerce . . . Paris, Le Jay, 1768. 2 v. in 1. 2 pl. front.

Bossu's observations on his visits to the U. S., 1751–57 & 1757–62. 2d ed. Paris, 1768. 2 v. 3 pl. front. Tr. by J. R. FORSTER, Lond. 1771, 2v. (q.v. below.)

See also SABIN, v. 2, p. 300–2.

Dutch ed. Amsterdam, S. VAN ESVELDT, 1769. 2 v. in 1. 3 pl. front.

See also COUES, (1). Pl. 1, p. 583.

*COLLINSON, Peter. 1) An account of some very large fossil teeth found in North America; 2) A sequel to the foregoing account of the large fossil teeth. (In Philos. Trans. v. 57, p. 464–69, 2 pl. 1768)

Rd Nov. 26 & Dec. 10, 1767. Abstract in Abrig. ed. 1809. v. 12, p. 476–78. Teeth and bones sent by George Croghan.

*KALM, Peter [Pehr]. Histoire naturelle et politique de la Pensylvanie traduit de l'allemand [par de Surgy]. Paris, 1768. 20 + 372 p. map.

Regne végétal. p. 46–86.

PART B. Pioneer Century: 1769–1865

Nine point type indicates Books.

Eight point type indicates periodical articles or pamphlets.

1769 HUNTER, William. Observations on the bones, commonly supposed to be elephant bones, which have been found near the river Ohio in America. (In Philos. Trans. v. 58, p. 34–45, 1 pl. 1769.)

Rd Feb. 25, 1768.

Abstract also in Abridg. ed. 1809. v. 12, p. 504–7.

1771 *ELLIS, John. The figures and character of that elegant American evergreen, called by the gardeners Loblolly Bay, taken from blossoms blown near London. (In Philos. Trans. v. 60, p. 518–23, 1 pl. 1771.)

Also in Abridg. ed. Trans. 1809. v. 13, p. 84–5.

————. . . . An account of a new species of Illicium Floridanum, Linnaei, or starry anniseed tree, lately discovered in West Florida. (In Royal Soc. London. Philos. Trans. v. 60, p. 524–31, 1 pl. 1771)

Also in Abridg. ed. Trans. 1809. v. 13, p. 85–8.

*FORSTER, J. R. A catalogue of the known plants, shrubs and trees in North America, collected from various writers on that subject. (In BOSSU, J. B. Travels through that part of North America formerly called Louisiana. Lond. 1771. v. 2, p. 17–67.)

Also issued separately. Lond. 1771. 8 + 51 p.

See 1768: Bossu (above).

————. A catalogue of the animals of North America . . . to which are added short directions for collecting, preserving and transporting all kinds of natural history curiosities . . . Lond., B. White 1771. 43 p. 1 pl. (front.)

Repr. with preface by P. L. Sclater, 1882, in the Publications of the Willughby Society.

See also COUES (1), pt. 1, p. 584.

*PENNANT, Thomas. An account of two new tortoises, in a letter to Matthew Maty, May 2, 1771. . . . (In Philos. Trans. v. 61, p. 266–73, 1 pl. 1771.)

1773 *ELLIS, John. Some additional observations on the method of preserving seeds from foreign parts, for the benefit of our American colonies; with an account of the garden at St. Vincent, under the care of George Young. Lond. 1773. 15 p. 4°.

1775 GARDEN, Alexander. An account of the electrical eel, Gymnotus electricus. (In Philos. Trans. v. 65, p. 102–10. 1775.)

Written, Charleston, S. C., Aug. 14, 1774.

Abstract in Abridg. ed. 1809. v. 13, p. 600–4.

[MITCHELL, John]. American husbandry, containing an account of the soil, climate, production and agriculture of the British colonies in North America and the West-Indies; with observations on the advantages and disadvantages of settling in them, compared with Great Britain and Ireland, by an American . . . London, printed for J. Bew, 1775. 2 v.

v. 1, 472 p.; v. 2, 319 + 16 p.

See Lyman Carrier. Amer. Hist. Assoc. Ann. Rept. for 1918. p. 199–219. & Amer. Soc. Agron. Jour. v. 11, no. 5, p. 206–11. 1919.

ROMANS, Bernard. A concise natural history of East and West Florida; containing an account of natural produce of all the southern part of British America, in the three kingdoms of nature, particularly the animal and vegetable; likewise, the artificial produce now raised and manufactured there, with some commercial and political observations in that part of the world, and a choro graphical account of the same . . . N. Y. Printed for the author, 1775. 4 + 342 p. 6 pl. 3 maps. fold. tab.

Extended notes in SABIN, v. 17, p. 531–33. 2d ed. 1776.

1776 ANON. The history of North America, containing an exact account of their first settlements, their situation, climate, soil, produce, beasts, birds, fishes . . . with the present state of the different colonies and a large introduction. Lond. 1776. [2] + 284 p. map.

1777 *BOSSU, J. B. Nouveaux voyages dans l'Amérique Septentrionale, contenant une collection de lettres écrites sur les lieux,

par l'auteur; à son ami, M. Douin . . . ci-devant son camarade dans le Nouveau Monde . . . Amsterdam, Changuion, 1777. xvi, 322 p. 3 pl. front.

Bossu's third visit to Louisiana in 1770–71. See above, 1768: *Bossu.

See also Sabin, v. 2, p. 301.

1778 *ALVAREZ, F[rancisco]. Noticia del establecimiento y poblacion de las colonias inglesas en la America septentrional; religion, orden de gobierno, leyes y costumbres de sus naturales y habitantes; calidades de su clima, terreno, frutes, plantas y animales . . . Madrid, Antonio Fernandez, 1778. 196 p. 4°.

Plants, p. 174–82.

*CARVER, Jonathan. Travels through the interior parts of North-America in the years 1766, 1767, and 1768 . . . London. Printed for the author, sold by J. Walter, 1778. 10 + xvi, 17–543 + [1] p. illus. pl. maps.

The work is sometimes attributed to Dr. John Coakley Lettsom.

A comprehensive and well collated Bibliography of Carver's "Travels" may be found (In State Hist. Soc. Wis. Proc. for 1909. Madison, Wis., 1910. p. 143–83, port. 5 facsim.)

See also Amer. Hist. Rev. v. 11, p. 287–302. Jan. 1906 (E. G. Bourne).

A biogr. sketch & port. & repr. of p. 494–526 may be found in Lloyd Library, Cincinnati. Bull. no. 9. (Reprod. ser. no. 5. 1907)

Only a few of the numerous ed. pub. of this work are cited below.

2d English ed. London. Printed for the author by W. Richardson, 1779. 12, 1, xvi, [17]–543 + [1] p. illus. pl. port. front. maps.

3rd English ed., with an account of the author, ed. by J. C. Lettsom. Lond. C. Dilly, 1781. 2 p. 1, 22, [22], xvi, [17]–543 + [21] p. illus. pl. port. maps.

Irish ed., Dublin, Printed for S. Price, 1779. 10 p. 1, xiii, [15]–508 p. 2 pl. map.

German ed., Hamburg, C. E. Bohm, 1780. xxiv, 456 p. map.

French ed., Paris, Pissot, 1784. 24, xxviii, 451 p. map.

Dutch ed., Leyden, 1796. 2 v. in 1. pl. map.

Scotch ed., Edinb., J. Key, 1798. xx, 21–380 p.

See also Coues (1), pt. 1, p. 585, 586, 591–92, & Sabin, v. 3, p. 382–83.

Some American Editions

1st Amer. ed. entitled: THREE years travels through the interior parts of North-America, for more than five thousand miles, containing an account of the Great Lakes, and all the . . . north-west regions of that vast continent . . . Phila. Printed by J. Crukshank, 1789. xvi, vii, [9]–282 p.

Another ed. Portsmouth, N. H., Printed by Charles Peirce for David West, 1794. (For pagination see preceding entry).
Phila. Key & Simpson, 1796. xx, ix, [11]–360, 20 p.
Bost. Printed by John Russell, 1797. xvi, [5]–312 p.
Charlestown, Mass., Printed by Samuel Etheridge for West & Greenleaf, 1802. xvi, [5]–312 p.
Walpole, N. H., Isaiah Thomas & Co., 1813. xvi, [17]–280 p.
Repr. as "Travels in Wisconsin," from the 3rd Lond. ed. (see above). N. Y. Harper, 1838. xxxii, [33]–376 p. pl. port, 2 maps.

HUTCHINS, Thomas. A topographical description of Virginia, Pennsylvania, Maryland, and North Carolina. Comprehending the Rivers Ohio, Kenhowa, Scoto, Cherokee, Wabash, Illinois, Mississippi, etc., the climate, soil and produce, whether animal, vegetable, or mineral; the mountains, creeks roads . . . Lond. Printed for the author, and sold by J. Almon, 1778. [2], ii, 67, [1] p., 2 maps, tab.

Repr. in 3d ed. of IMLAY, (1792), q. v. Amer. ed. Bost. Printed by John Norman, 1787. 30, [2] p. 2 plans, tab.
See also SABIN, v. 9, p. 19–20.

1780 [RANDOLPH, John, Jr.] A treatise on gardening, by a citizen of Virginia . . . [1780?]

Repr. in 2d ed. of GARDINER, John, and HEPBURN, David. American gardener. 1818. p. 269–331.
Another repr. ed. by Marjorie F. Warner. Richmond, Va. William Parks Club, 1924. [15] + 54 p. See also her paper "The earliest American book on kitchen gardening." (In Amer. Hist. Assoc. Ann. Rept. for 1919. Wash. 1923. v. 1, p. 431–42) & repr. (In Agric. Hist. Soc. Papers. v. 2, p. 431–42. 1923)

1781 *WANGENHEIM, F. A. J. von. Beschreibung einiger Nord-Amerikanischen Holz- und Buscharten mit Anwendung auf teutsche fremder Holzarten. Göttingen, 1781. 151 + [9] p. 4°.

1782 CREVÈCOEUR, M. G. St. J. de. Letters from an American farmer; describing certain provincial situations, manners and customs not generally known; and conveying some idea of the late and present interior circumstances of the British colonies in North America. Written for the information of a friend in England, by J. Hector St. John. Lond. Thomas & Lockyer Davies, 1782. [8], 318 p. 2 maps.

Amer. ed. Phila. Carey, 1793. 240 p. & Phila. 1798. 260 p.
French ed. 1787. Numerous ed. pub. A recent repr. N. Y. Fox, Duffield, 1904. 37 + 355 p. (ed. by Ludwig Lewisohn).
See also SABIN, v. 5, p. 77–9.

1782 [JEFFERSON, Thomas.] Notes on the state of Virginia, written in the year 1781, somewhat corrected and enlarged in the win-

ter of 1782, for the use of a foreigner of distinction, in answer to certain queries proposed by him respecting . . . 1. Its boundaries; 2. Rivers; 3. Sea ports; 4. Mountains . . . [Paris, 1782] 2, 391 p. illus, tab.

Printed in 1784–85. 1st English ed. Lond. 1784. 1st Amer. ed. Phila. Prichard & Hall, 1788. 2+244 p. fold. tab. 2d Amer. ed. Phila. Printed for M. Carey, 1794. 2, 336 p. illus. maps.

1st Fr. transl. Paris, Barrois, 1786. 2, viii, 390, 3 p. map, tab.

Numerous subsequent reprints. For a comprehensive treatment with notes of the various editions, see SABIN, v. 9, p. 240–42.

See also COUES (1), pt. 1, p. 586–87, 588, 595.

See also GOODE, G. B. U. S. Nat. Mus. Ann. Rept. for 1897. Wash. 1901. pt. 2, p. 394–96.

1783 YOUNG, William, Jr. Catalogue d' Arbres, Arbustes, et Plantes Herbacees d'Amerique. Paris, 1783.

Repr., Phila. Privately printed, 1916. 11+[3]+55p. 4°.

"Botanica neglecta, William Young, Jr. (of Philadelphia), 'Botaniste de Pennsylvania' and his long forgotten book being a facsimile reprint of his "Catalogue . . ." with a prefatory account of the author and critical notes by the editor, Samuel N. Rhoads.

See also Harshberger, J. W. in (Torreya. v. 17, no. 6, p. 91–9. June, 1917).

See also James Britten. W. Y. (In Jour. Bot. v. 32, p. 332–37. 1894). See also Catalogue of Joseph Banks ed. by J. Dryander. Lond. 1797. v. 3, p. 186.

1784 BELKNAP, Jeremy. The history of New Hampshire. Phila. & Boston, 1784–92. 3 v. map.

Natural history in v. 3, 1792 assisted by W. D. Peck and Manasseh Cutler. Description of White Mts., p. 39–54; forest trees and plants, p. 96–127; native animals, p. 146–87; stones, fossils, minerals, p. 188–96.

Another ed. DOVER, N. H., 1812. 3 v. map. & numerous subsequent ed.

See also COUES (1), pt. 1, p. 589. For other ed. see SABIN, v. 2, p. 27–28.

————. Journal of a tour to the White Mountains in July, 1784. . . . Printed from original MS in Mass. Hist. Soc., ed. by Charles Deane. Bost. 1876. 21 p. map.

FILSON, John. The discovery, settlement, and present state of Kentucke; and an essay towards the topography and natural history of that important country . . . Wilmington, Del., printed by James Adams, 1784. 118 p. map.

See also SABIN, v. 6, p. 421–22. Lond. ed. 1793. (In IMLAY, G. Topographical description . . . N. A.) See also Filson Club. Pub. no. 1. 1884.

*SMYTH, J. F. D. A tour in the United States of America, containing an account of the present situation of that country . . . London, 1784. 2 v. (400+455 p.)

1785 MARSHALL, Humphry. Arbustrum [sic] Americanum: the American grove, or, an alphabetical catalogue of forest trees and shrubs, natives of the American United States, arranged according to the Linnaean system. Containing, the particular distinguishing characters of each genus, with plain, simple and familiar descriptions of the manner of growth, appearance, &c., of their several species and varieties; also, some hints of their uses in medicine, dyes, and domestic economy. Compiled from actual knowledge and observation, and the assistance of botanical authors. Phila. Printed by Joseph Crukshank, 1785. xx+174 p.

French transl., Paris, Cuchet. 1788. vii, [1], xxii+[2], 278, [3] p. ed. by Lézermes.

German transl., Leipzig, 1788. 16+344+[8] p. ed. by C. F. Hoffman.

1786 *CHASTELLUX, Francois Jean de. Voyages de . . . dans l'Amérique Septentrionale dans les années 1780, 1781 and 1782. Paris, Prault, 1786. 2 v. fold maps.

Transl. by G. Grieve. London, Robinson, 1787. 2 v. pl. maps. Amer. ed. N. Y. Gallaher, White, 1827. 416 p.

CUTLER, Manasseh. Selections from a note-book entitled: A description of the animals of North America taken from actual observations. Boston, 1786. 8 p.

From original MS in Harvard College. Repr. in Essex Inst. Bull. v. 29, p. 120–27. 1897.

MARSHALL, Humphry. Observations tending to show the utility of botanical knowledge in relation to agriculture, and the feeding of cattle, etc. Phila. 1786.

In MS at the Library of the Phila. Soc. Prom. Agric. before whom it was read Feb. 14, 1786. Printed in Darlington, William. Memorials of Bartram & Marshall. 1849. p. 582–85

1787 BARTON, B. S. Observations on some parts of natural history; to which is prefixed an account of several remarkable vestiges of an ancient date, which have been discovered in different parts of North America; pt. 1. London. Printed for the author, [1787]. 76 p. pl.

[CUTLER, Manasseh.] . . . Description of Ohio. An explanation of the map which delineates that part of the federal lands comprehended between Pennsylvania west line, the rivers Ohio and Scioto, and Lake Erie. . . . Salem, Mass., Dabney & Cushing, 1787. 24 p. (In Old South Leaflets. Bost. 1893. Gen. ser. v. 2, no. 40)

Repr. Columbus, 1888. 104 p. tr. from French. Fr. ed. Paris, 1789. 30 p. See also SABIN, v. 5, p. 161–62.

Bibliographical Account, by P. L. Phillips. Wash. D. C. Lowdermilk, 1918. 41 p. map.

*SCHOEPF, J. D. Beyträge zur mineralogischen Kenntniss des östlichen Theils von Nord-Amerika und seiner Gebirge. Erlangen, J. J. Palm, 1787. [2], 194 p. + [1] p.

SQUIBB, Robert. The gardener's kalender, for South Carolina and North Carolina, containing an account of all work necessary to be done in the kitchen and fruit gardens every month in the year, with instructions for performing the same; also particular directions relative to soil and situation, adapted to the different kinds of plants and trees most proper for cultivation in those states. Charleston, S. C., A. Timothy, 1787. 108 p.

Other ed., 1813 and 1827.

*WANGENHEIM, F. A. J. von. Beytrag zur teutschen holzgerechten Forstwissenschaft; die Anpflanzung Nord-Amerikanischer Holzarten, mit Anwendung auf teutsche Forste betreffend. Göttingen, J. H. Dietrich, 1787. 45 + [1] +124 + [8] p. + 31 p. 4°.

1788 SCHOEPF, J. D. Reise durch einige der mittlern und südlichen vereinigten nordamerikanischen Staaten ach Ost-Florida und den Bahama-Inseln unternommen in den Jahren 1783 und 1784 . . . Erlangen, Bey Johann Jacob Palm, 1788. 2 v. fold. map.

v. 1, [22] + 644 + (1) p. v. 2, [4] + xxxii + [552] p.

Trans. & ed., by Alfred J. Morrison. Phila. W. J. Campbell, 1911. 2 v. facsim. "Travels in the Confederation, 1783–1784." Rev. Science. n. s. v. 34, p. 610–11. Nov. 3, 1911.

See also Lloyd Library. Bull. no. 16. Botany ser. no. 2. 38, [2] p. Cincinnati, 1912. ed. by A. J. Morrison.

Pref. v. 2, xxxii, p. on "The Climate and diseases of America," transl. by Dr. J. R. Chadwick. Bost. Houghton, 1875. 31 p.

See also Pa. Mag. Hist. & Biog. v. 5, p. 74–81. 1881. (Travels through Berks Co., Pa.)

————. Beschreibungen einiger Nord-Amerikanischer Fische, vorzeuglich aus den Neu-Yorkischen gewaessern. Berlin, 1788. (In Gesellschaft naturforschender Freunde zu Berlin. Schriften. v. 8, p. 138–94.)

See also GILL, T. N. in his edition, Wash. 1898, of S. L. Mitchill's Report in part of the fishes of N. Y. pub. N. Y. 1814, pref. p. 8.

*TRUSLER, John. Habitable world described; or, The present state of the people in all parts of the globe . . . collected from the earliest and latest accounts of historians and travellers of all nations . . . London, 1788–97. 20 v.

See also Daggett, F. S. A bit of early California natural history. (In Condor. v. 10, p. 135–37. July, 1908)

WALTER, Thomas. Flora Caroliniana, secundum systema vegetabilium perillustris Linnaei digesta; characteres essentiales natur alesoe et differentias veras exhibens; cum emendationibus numerosis; descriptionum antea evulgatorum, adumbrationes stirpium plus mille continens: necnon, generibus novis non paucis, speciebus, plurimis, novisa ornata. Londini, sumptibus J. Fraser, 1788. 8 + 263 p. front.

See also Blake, S. F. Some neglected names in Walter's Flora Caroliniana. (In Rhodora. v. 17, p. 129–37. July, 1915)

See also Hitchcock, A. S. Identification of Walter's grasses. (In Missouri Bot. Gard. Ann. Rept. 1905. v. 16, p. 31–56)

1789 BARTRAM, William. . . . Observations on the Creek and Cherokee Indians. . . . 1789.

Posthumous publication. In Amer. Ethnol. Soc., N. Y. Trans. v. 3, pt. 1, p. [1]–81. 1853. With prefatory and supplementary notes by E. G. SQUIER.

1790 *CASTIGLIONI, Luigi. Viaggio negli Stati-Uniti dell' America Settentrionale, fatto negli anni 1785, 1786, e-1787 . . . con alcune osservazioni sui vegetabili più utili di quel paese. Milano, Marelli, 1790. 2 v. 14 pl. (5 maps)

v. 1, xli + 403 p.; v. 2, vi + 402 p.

Observations on vegetables, v. 2, p. 169–402, pl. 12–14.

German ed. Memmingen, Andreas Seigler, 1793. 7, 495 p. pl. map.

DEANE, Samuel. The New-England farmer, or, Georgical dictionary: containing a compendious account of the ways and methods in which the most important art of husbandry, in all its various branches, is, or may be practised to the greatest advantage in this country. Worcester, Mass., I. Thomas, 1790. 8 + 335 p.

2d ed. 1797. 8 + 397 p.

3d ed. Bost. 1822. 532 p.

BARTRAM, William. . . . Travels through North & South Carolina, Georgia, East & West Florida, the Cherokee country, the extensive territories of the Muscogulges, or Creek confederacy, and the country of the Choctaws, containing an account of the soil and natural productions of those regions, together with observations on the manners of the Indians, embellished with copper plates. Phila. Printed by James & Johnson, 1791. xxxiv + 522 p. 8 pl. port. fold map.

Original MS and 53 drawings of the plants and animals accompanied by descriptions of them, are preserved in the Botanical Department of the British Museum of Natural History.

English ed., London, 1792; Dublin, Moor, etc., 1793. 24+520+[12] p. 7 pl. map. French ed. Paris, [1799]. 2 v. port. pl. map.

French ed. Paris, Mavadan, [1801]. 2 v. & Paris [1799]. 2 v.

German ed., Berlin, 1793. 26+501 p. Ed. by E. A. W. Zimmermann.

Dutch ed. Haarlem, 1794–97. 3 parts.

Repr. [N. Y.], Macy-Masius, 1928. 414 p. (An Amer. bookshelf, no. 3.)

See also COUES, Elliott. Fasti Ornithologiae redivivi. No. 1, Bartram's "Travels." (In Phila. Acad. Nat. Sc. Proc. v. 27, p. 338–58. 1875.)

See also COUES (1), pt. 1, p. 588–89, 590, 594, & SABIN, v. 1, p. 513–14.

JEFFERSON, Thomas. Report of the Secretary of State on the subject of the cod and whale fisheries. . . . Feb. 1, 1791, Phila. Printed by John Fenno, 1791. 34 p. 4°.

Repr. in Amer. State Papers. v. 7, p. 8–21. 1832.

Repr. as a House Doc. Phila. Childs & Swaine, 1791, 28 p. 4°, & Phila. 1792. 45 p.

1791 BARTON, B. S. An account of the most effectual means of preventing the deleterious consequences of the bite of the Crotalus Horridus, or rattle-snake. (In Amer. Phil. Soc. Trans. v. 3, p. 100–15. 1791.) Rd Aug. 19, 1791.

Should have been included in v. 2, p. 13, of this Bibliography.

REICHE, C. C. Fifteen discourses on the marvelous works in nature, delivered by a father to his children . . . Phila. Printed for the author by James & Johnson, 1791. 3 p l., (1), iv–vi, (1), 8–180 p. 12°.

1792 ABBOT, John. Drawings of the insects of Georgia . . . Lond. 1792–1804. 17 v. 4°.

Original water-color drawings with MS descriptions are in the Library of the British Museum of Natural History. See also ABBOT & SMITH (1797) below.

See also James Britten. Smith's Georgian Plants. Jour. Botany. v. 36, p. 297–302. 1898.

BARTON, B. S. An account of the most effectual means of preventing the deleterious consequences of the bite of the Crotalus horridus, or rattlesnake. Phila. Printed by R. Aitken & Son, 1792.

*IMLAY, G[ilbert]. A topographical description of the western territory of North America, containing a succinct account of its

climate, natural history, population, agriculture . . . Lond. Printed for J. Debrett, 1792. 2, xv, 247 p.

See also SABIN, v. 9, p. 58–9.

German trans. Berlin, 1793. 15 + 168 p.

American ed., N. Y. Samuel Campbell, 1793. 2 v. (xxiii, 260; 204). 2 maps, plate. Mammals & birds, p. 202–9.

Irish ed. Dublin, 1793. 2, xx, 249 p.

3d ed., 1797, of "Imlay" contains repr. of FILSON, 1784 (q. v.), HUTCHINS, 1778 (q. v.), and others.

MICHAUX, André. Notice de quelques plantes rares ou nouvelles observées dans l'Amerique septentrionale . . . redigée avec des observations par M. Lamarck. (In Jour. d'hist. nat. ed. by Lamarck, Bruguiere, etc. v. 1, p. 409–19. Paris, 1792.)

Repr. with notes by Alfred Rehder in Arnold Arboretum Jour. v. 4, p. 1–8. Jan. 1923.

MITCHILL, S. L. Outlines of the doctrines in natural history, chemistry and economics. . . . N. Y. Childs & Swaine, 1792. 31 p.

POPE, John. A tour through the southern and western territories of the United States of North-America; the Spanish dominions on the river Mississippi and the Floridas; the countries of the Creek nations and many uninhabited parts . . . Richmond, Va., John Dixon, 1792.

Repr. N. Y. for C. L. Woodward, 1888. 104 + 4 p.

[RILEY, George]. The beauties of the creation; or, A new moral system of natural history; displayed in the most singular curious, and beautiful quadrupeds, birds, insects, trees, and flowers . . . Phila. Printed by William Young, 1792. 343 p.

2d ed. 1796. 343 p. 3d ed. Worcester, Mass., Isaiah Thomas, 1798. 274 p.

1793 SEYBERT, Adam. An inaugural dissertation; being an attempt to disprove the doctrine of the putrefaction of the blood of living animals. Phila. T. Dobson, 1793. 78 p.

Repr. in Caldwell, Charles. Med. Theses. 1805, p. 1–43. German transl. Berlin, 1816. 112 p. (entitled: Abhandlung uber die Faulniss des Bluts. . . .)

1794 DRAYTON, John. Letters written during a tour through the northern and eastern states of America. Charleston, S. C. Harrison & Bowen, 1794. iv, 3–138 p. 3 pl.

[ELLICOTT, Andrew.] Observations on the River Potomack, the country adjacent, and the city of Washington. N. Y., 1794. 30 p.

WILLIAMS, Samuel. The natural and civil history of Vermont. Walpole, N. H., Thomas & Carlisle, Jr., 1794. 416 p. map.

Physiography, p. 17–41; vegetable productions, p. 66–80; native animals, p. 81–132; Indians, p. 187–209.
Another ed. Burlington, Vt., 1794. 2 v. & 1809. 2 v.
See also COUES (1), pt. 1, p. 591, 601.

1795 HOSACK, David. Syllabus of the course of lectures, on botany, delivered in Columbia College. . . . N. Y. Printed by J. Childs, 1795. 22 p.

PECK, W. D., and CUTLER, Manasseh. [Methods of preserving animals and their skins collected from various authors.] (In Mass. Hist. Soc. Coll. v. 4, p. 8–14. 1795.)

PECK, W. D. The description and history of the cankerworm. (In Mass. Mag. v. 7, p. 323–27, 415–16, 1 pl. Sept.–Oct. 1795.)
Repr. in Rules & Regulations of Mass. Soc. Prom. Agric. 1796. p. 35–45. & in New England Farmer. v. 5, p. 393–94. July, 1827.

SHULTZ, Benjamin. An inaugural botanico-medical dissertation on the Phytolacca decandra of Linnaeus. Phila. Thomas Dobson, 1795. viii, 55 p. 1 pl.

SCOTT, Joseph. The United States gazetteer: containing an authentic description of the several states, their situation, extent, boundaries, soil, produce, climate, population . . . Phila., Bailey, 1795. [292] p. 19 maps.
First gazeteer. Published in the U. S.

1796 ATWATER, Noah. Natural history of the canker-worm (Paleacrita vernata). (In Mass. Soc. Prom. Agric. Rules & Regulations. 1796. p. 45–50.)

*MICHAUX, Andre. Portions of the Journal of Andre Michaux, botanist, written during his travels in the United States and Canada, 1785 to 1796; with an introduction and notes by C. S. Sargent. 1796. (In Amer. Phil. Soc. Proc. v. 26, p. 1–145. 1889.)
Repr. as in succeeding article.

————. Travels into Kentucky, 1793–96. 1796. (In Thwaites, R. G., ed. Early western travels. v. 3, p. 25–104. 1904.)

RAMSAY, David. A sketch of the soil, climate, weather, and diseases of South Carolina. . . . Charleston, S. C. Printed by W. P. Young, 1796. [4], 30 p. tab.
Rd before Med. Soc. S. C.

1797 BARTON, B. S. New views of the origin of the tribes and nations of America. Phila. Printed for the author by J. Bioren, 1797. 12+104+83 p.
2d ed. corr. & enl. 1798. 28+109+133+32 p.

HECKEWELDER, John. Reise von Bethlehem in Pennsilvania bis zum Wabash fluss in nordwestlichen gebiet der Vereinigten

staaten von Nordamerika mit anmerkungen herausgegeben von M. C. Sprengel. Halle, 1797. 94 p.

Made in 1792. Transl. by Clara Frueauff in Pa. Mag. Hist. & Biog. v. 11, p. 466–75, 1887. v. 12, p. 34–54, 165–84, 1888. Repr. as separate, ed. by J. W. Jordan. Phila. 1888. 51 p.

*HENFREY, Benjamin. A plan with proposals for forming a company to work mines in the United States; and to smelt and refine the ores, whether of copper, lead, tin, silver, or gold . . . Phila. Printed by Snowden & McCorkle, 1797. 34 p. chart.

*LA PÉROUSE, J. F. G. de. Voyage de la Pérouse autour du monde, [pendant les annees 1785, 1786, 1787 et 1788], publié conformément au décret du 22 avril, 1791, et redige M. L. A. Milet-Mureau. Paris, Imprimerie de la Republique 1797. 4 v. 4°.

Natural History of California, v. 2, ch. 11, p. 247–83. Some California insects, by La Martiniere. v. 4, p. 61–72. See also Jepson, W. L. In Erythea. v. 1, p. 185–89. 1893.

For various ed. see SABIN, v. 10, p. 68–70. Amer. ed. Bost. Bumstead, 1801. 333 p.

*SMITH, J. E., and ABBOT, John. The natural history of the rarer lepidopterous insects of Georgia. Including their systematic characters, the particulars of their several metamorphoses, and the plants on which they feed. Collected from the observations of Mr. John Abbot, many years resident in that country, by James Edward Smith . . . London. Printed by T. Bensley, for J. Edwards, Pall Mall; Cadell & Davies, Strand; and J. White, Fleet Street, 1797. 2 v. 104 col. pl. folio. (41 cm.)

Preface dated May 29, 1797.

v. 1, [6] + xv + p. [1]–104. 52 col. pl.

v. 2, [2] + p. 105–214. 52 col. pl.

Preface in English and French. Reviewed in Amer. J. Sc. ser. 2, v. 1, p. 20. Jan. 1846.

See also ABBOT, under 1792.

Added title-page is given in French as follows:

HISTOIRE naturelle des Lépidoptères les plus rares de Georgie. Contenant leurs caractères systématiques, les particularités de leurs différentes métamorphoses, avec les plantes qui leur servent d'aliment. Composée d'apres les observations de M. Jean Abbot, qui a residé plusieurs années en ce pays, par Jacques Eduoard Smith . . .

Descriptions given in both English & French.

1798 ALLEN, Ira. The natural and political history of the state of Vermont, one of the United States of America; to which is added an appendix, containing answers to sundry queries, addressed to

the author. London. Printed by J. W. Myers, sold by W. West, 1798. vii, 300 p.

Repr. in Vermont Hist. Soc. Coll. Montpelier, Vt., 1870. v. 1, p. 319–499.

BARTON, B. S. Collections for an essay toward a Materia Medica of the United States . . . Phila. Printed for the author by Way & Groff, 1798. 7 + 49 p.

Preface dated Phila. March 12, 1798. Rd before Phila. Med. Soc. Feb. 21, 1798. 2d ed. Phila. R. Carr, 1801. 12, 64 p. (In College Physicians Phila. Trans. v. 1, pt. 1). Pt. 2 pub. 1804. 53 p. 3d ed. 2 pts. in 1. Phila. Earle, 1810. 16, 67; 15, 53 p.

Repr. with Biogr. & Port. in Lloyd Library. Cincin. 1900. Bull. no. 1, Reprod. ser. 1. 7 + 49 + 16 + 53 p.

PECK, W. D. Naural history of the slug-worm . . . by order of the Massachusetts Agricultural Society . . . Boston, 1798. (In Mass. Hist. Soc. Coll. v. 5, p. 280–90)

Also published in the Massachusetts Mercury.

Published separately. Bost. Printed by Young & Minns, 1799. 14 p. 1 pl. [18 fig.]

1799 BARTON, B. S. Fragments of the natural history of Pennsylvania . . . Part I Phila. Printed for the author, by Way & Groff, 1799. xviii + 24 p. folio.

Very rare.

Repr. by Osbert Salvin. London, 1883. 5 + 18 + 24 p. (In Willughby Soc. Publications).

Rev. by S. L. Mitchill in Med. Repos. v. 3, no. 2, p. 177–89. Oct. 1799. (ed. 1) & (same for ed. 2, 1805).

See also COUES, (1), pt. 1, p. 592–94, for a critical discussion & list of contents.

COOPER, Joseph. Letter . . . on the Hessian fly and the early white wheat. (In Mass. Soc. Prom. Agric. Papers. 1799. p. 26–8)

HALL, James. An account of a supposed artificial wall, discovered under the surface of the earth in North-Carolina, in a letter to James Woodhouse . . . N. Y. 1799. (In Med. Repository. v. 2, (1st ed.), p. 272–74). Written May 25, 1798.

Reply by James WOODHOUSE, p. 275–78. Repr. in v. 2, (2d ed.), 1805, p. 259–63. Hall's art. in 2d ed. on p. 257–59. This title should have been inserted in v. 2, p. 68, see MEDICAL REPOSITORY (1797).

*WELD, Isaac. Travels through the states of North America, and of the provinces of Upper and Lower Canada, 1795, 1796, and 1797. London, J. Stockdale, 1799. xxiv, 464 p. 11 pl. 2 plans, 3 maps.

Other English ed. 1800 & 1807. German, French & Dutch ed.

1800 Massachusetts Society for Promoting Agriculture. Inquiries . . . [66 (sixty-six) in number] Bost. Young & Minns, 1800. 29 p.

PEALE, C. W. Introduction to a course of lectures on natural history, delivered in the University of Pennsylvania, Nov. 16, 1799. Phila. Printed by Francis & Robert Bailey, 1800. 28 p.

————. Discourse introductory to a course of lectures on the science of nature . . . delivered in the Hall of the University of Pennsylvania, Nov. 8, 1800. Phila. Z. Poulson, Jr., 1800. 50 p. 5 fold. pl.

WOODHOUSE, James. Of American blistering flies [Meloe clematides & Nigra Chapmani]. N. Y. (In Med. Repository. v. 3, p. 213–14).

Repr. in 2d ed., 1805, p. 213–14. This item should have been inserted in v. 2, p. 68. See MEDICAL REPOSITORY (1797).

1801 BARTON, B. S. On the utility of birds in destroying insects and other productions hurtful to mankind. Lond. 1801. (In Phil. Mag. ed. by Tilloch. v. 9, p. 52–62)

Massachusetts Society for Promoting Agriculture. Papers on agriculture . . . Bost. 1801–32. 10 v.

Later known as Mass. Agric. Repository & Journal.

MICHAUX, André. Histoire des Chênes de l'Amérique; ou Descriptions et figures de toutes les espêces et variéties de Chênes de l'Amérique Septentrionale, considérées sous les rapports de la botanique, de leur culture et de leur usage. Paris, De Crapelet, 1801. 2 + 37 p. 36 pl. folio.

Repr. Dublin, 1809. 31 + [8] + 73 p. Notes & appx. by William WADE. German ed. Stuttgart, 1802–4. 2 pts. 14 pl.

Extract in Anales de Ciencias naturelles, Madrid, 1802. v. 5, no. 13, p. 104–8. 1802. (By A. J. Cavanilles).

Rev. in Med. Repos. v. 6, p. 64–70. 1802.

See also SABIN, v. 12, p. 137–38, who gives pagination as [4], 7, [44] p.

MUHLENBERG, H. E., and *WILDENOW, C. L. Kurze Bemerkungen über die in der Gegend von Lancaster in Nord-amerika wachsenden Arten der Gattungen, Juglans, Fraxinus, und Quercus. (In Gesell. Naturforschender Freunde zu Berlin. Neue Schriften. Berlin, 1801. v. 3, p. 387–402).

Also in (König, Charles. Tracts relative to botany. 1805. p. 241–59).

STEARNS, Samuel. The American herbal; or, Materia Medica, wherein the virtues of the mineral, vegetable and animal productions of North and South America are laid open, so far as they are known, and their uses in the practice of physic and surgery exhibited . . . Walpole, (N. H.). Printed by D. Carlisle, for Thomas & Thomas, and the author. 1801. 360 p.

1802 BALTZELL, John. An essay on the mineral properties of the Sweet Springs of Virginia, and conjectures respecting the processes of their production by nature . . . Baltimore, Werner & Hanna, 1802. 30 p.

DRAYTON, John. A view of South Carolina, as respects her natural and civil concerns . . . Charleston, S. C. Printed by W. P. Young, 1802. [2] + 252 + [1] p. 31 pl. maps.

Botanical catalogue. p. 60–87. Natural History, ch. 1, p. 1–91.

German ed. Weimar, 1808. 406 p. map.

Rev. in Med. Repos. v. 9 (2d hexade, v. 3), p. 399–403. April, 1806.

MICHAUX, F. A. Catalogue des graines rares envoyees pendant l'an X du jardin de botanique appartenant à la France, situé près de Charles-Town dans la Caroline méridionale, pour le jardin des plantes de Paris . . . Paris, 1802. (In Mus. Nat. d'Hist. Naturelle. Annales. v. 1, p. [92].)

PEALE, Rembrandt. Account of the skeleton of the Mammoth, a non-descript carnivorous animal of immense size found in America [in 1801]. Lond. E. Lawrence, 1802. 46 p.

Extracts in Philos. Mag. ed. by Tilloch. v. 14, p. 162–69, 228–29. 1802.

ROGERS, P. K. An investigation of the properties of the Liriodendron tulipifera, or poplar tree. Phila. Printed by Benj. Johnson, 1802. 67 p.

Diss. Univ. Pa., May 27, 1802.

Society for Promoting Agriculture in the State of Connecticut. Transactions of the . . . New Haven, Printed by William W. Morse, 1802. 21 p.

WOODHOUSE, James. Experiments and observations on the vegetation of plants which show that the common opinion of the amelioration of the atmosphere by vegetation in solar light, is ill founded. (In Nicholson's Jour. v. 2, p. 150–62. 1802).

Repr. in Annales de Chimie. v. 43, p. 194–212, 1802; & Gilbert's Annalen. v. 14, p. 348–63, 1803.

1803 ANON. An account of Louisiana, being an abstract of documents in the offices of the Departments of State and of the Treasury. Washington, 1803. 50 p. (In U. S. 8th Cong., 1st sess.)

Rendered Nov. 15, 1803.

BARTON, B. S. Elements of botany; or, Outlines of the natural history of vegetables. Phila. [author] 1803. 12 + [2] + 302 + 32 + 168 (38) p. 30 pl.

London, Gold. ed., 1804. 2 + 12 + 344 + (35) p. 30 pl.

2d Amer. ed. Phila. author 1812–14. 2 v. illus. 40 pl.

3d Amer. ed. Phila. R. De Silver, 1827. 2 v. 40 pl.

4th Amer. ed., edited by W. P. C. Barton, (with Life of B. S. B.) Phila. R. De Silver. 1836. 4, [11]–325 p. 39 pl. Pl. 37 not pub. in ed. 2 & 4.

Rev. in Med. Repos. v. 7 (2d hexade, v. 1), p. 48–64, 156–66. July & Oct. 1803.

DOWNEY, William. An investigation of the properties of the Sanguinaria Canadensis, or Puccoon. Phila. Printed for the author, by Eaken & Mecum, 1803. 34 p. pl.

Repr. in Lloyd Library, Cincinnati. Bull. no. 9, Reprod. ser. no. 5. 1907.

ELLICOTT, Andrew. The journal of . . . late commissioner on behalf of the United States during part of the year 1796, the years 1797, 1798, 1799, and part of the year 1800: For determining the boundary between the United States and the possessions of his Catholic Majesty in America, containing occasional remarks on the situation, soil, rivers, natural productions, and diseases of the different countries of the Ohio, Mississippi and the Gulph of Mexico . . . Phila. Printed by Budd & Bartram, for T. Dobson, 1803. 7 + 299 + 151 p. illus. 6 maps.

Rev. in Med. Repos. v. 7, p. 262–69. Jan. 1804.

Another ed. Phila. Printed by William Fry, 1814. 7, 299, 151 p. illus. diagr. 8 fold. pl. 6 fold. maps.

IVES, Eli. An oration on chemistry and botany delivered before the Phi Beta Kappa Society at New Haven, Dec. 9, 1802. New Haven, 1803. 16 p.

MICHAUX, André. Flora Boreali-Americana, sistens caracteres plantarum quas in America Septentrionali collegit et detexit . . . Paris et Argentorati, apud fratres Levrault, 1803. 2 v. 51 pl. (2 fold.)

v. 1, xii, 330 p. pl. 1–29.

v. 2, [4], 340 p. pl. 30–51.

Assisted by L. C. M. Richard.

Another ed. Paris, 1820. (same as above).

Rev. in Med. Repos. n. s. v. 2, p. 394–95. 1805.

MITCHELL, J. S. An essay on the Arbutus uva ursi, and Pyrola umbellata and maculata of Linnaeus. Phila Eaken & Mecum, 1803. 35 p. col. pl.

PEALE, Rembrandt. An historical disquisition on the Mammoth, or, Great American Incognitum, an extinct, immense, carnivorous animal, whose fossil remains have been found in North America, containing some introductory observations, a narrative of the discovery of nearly an entire skeleton near New York, in the autumn

of 1801, together with a comparative description and occasional remarks. London. Printed for E. Lawrence, by C. Hercier, 1803. v. 1, 91 p. pl.

Extract in Tilloch's Philos. Mag. v. 15, p. 325–27. 1803.

*VOLNEY, C. F. C. de. Tableau du climat et du sol des États-Unis d'Amérique, Suivi d'eclaircissemens sur la Floride, sur la colonie francaise au Scioto, sur quelques colonies canadiennes, et sur les savvages . . . Paris, Courcier, 1803. 2 v. pl. maps.

v. 1, xvi, p. 1–300; v. 2, p. [301]–532 p.

English ed. Lond. J. Johnson, 1804. xxiv [iii]–vi, 503 p. [1] pl. maps.

There is also an Italian ed. of v. 1. 1845.

2d French ed. Paris. 2 v. in 1. 494 p. map.

Amer. ed., with occasional remarks by C. B. Brown. Phila. J. Conrad & co., 1804. 28 + 446 p. pl. maps.

1804 *BEWICK, T[homas], and [ANDERSON, Alexander]. A general history of quadrupeds . . . chiefly copied from the original of T. Bewick, by A. Anderson; 1st American ed. with an appendix containing some American animals not hitherto described. N. Y. Printed by G. & R. Waite, 1804. x, 531 p.

[DELACOSTE,] I. C. Catalogue of the natural productions and curiosities which compose the collections of the Cabinet of natural history opened for public exhibition at No. 38 William St., New York. N. Y. 1804. 87 p.

Printed by Isaac Collins. Contains a proposal for the founding of a natural history society in New York City, signed by David Hosack, Wm More and Wright Post, the basis of which was to have been the purchase of Delacoste's collection. Catalogue records 563 specimens.

GARDINER, John, and HEPBURN, David. The American gardener; containing ample directions for working a kitchen garden every month in the year and copious instructions for the cultivation of flower gardens, vine-yards, nurseries, hop-yards, green houses, hot-houses. Wash. Samuel H. Smith, 1804. 204 p.

2d ed., 1818 & 3rd ed. Wash. W. Cooper, 1826. viii, 308 p.

MICHAUX, F. A. Voyage à l'ouest des monts Alléghanys, dans les ètats de l'Ohio, du Kentucky et du Tennessee et retour à Charleston par les hautes-Carolines; contenant des détails sur l'etat actuel de l'agriculture et les productions naturelles de ces contrées . . . Paris. Levrault, Schoell et cie, 1804. [4] + 6 + 312 p. map.

Lond. ed. as follows:

Travels to the westward of the Allegany mountains in the states of the Ohio, Kentucky and Tennessee, and return to Charlestown

[!] through the upper Carolinas . . . undertaken in the year X, 1802, under the auspices of his excellency M. Chaptal, Minister of the Interior; with a . . . map of the states in the centre, west, and south of the United States . . . transl. by B. Lambert. London, for J. Maroman, 1805. 6, 350 p.

Another ed. Printed for R. Phillips, 1805. 96 p. (In his Collection of modern & contemporary voyages, v. 1).

German edition ed. by von Ehrmann. Weimar, 1805.

Repr. also in Thwaites, R. G. ed. Early Western Travels. v. 3, p. 105–306. 1904.

1805 ANON. The foundation of the Massachusetts Professorship of Natural History at Harvard College . . . with documents relative to its establishment. Bost. 1805. 21 p. See also v. 2, p. 112–13.

BARTON, B. S. Letter to M. Lacepéde, of Paris, on the natural history of North America. Lond. 1805. (In Phil. Mag. ed. by Tilloch. v. 22, p. 97–103, 204–11.)

COXE, J. R. ed. The Philadelphia Medical Museum . . . Phila. 1805–11. 6 v.

HARRIS, T. M. The journal of a tour into the territory Northwest of the Alleghany Mountains, made in the spring of the year 1803. With a geographical and historical account of the State of Ohio . . . Bost. Manning & Loring, 1805. 271 p. 5 pl. maps.

*PALISOT de BEAUVOIS, A. M. F. J. Insectes recueillis en Afrique et en Amérique, dans les royaumes d'Oware et de Benin, à Saint-Domingue et dans les Etats-Unis, pendant les années 1786–1797 . . . Paris, Impr. de Fain et cie., 1805–21. xvi, 276 p. illus. col. pl. folio.

See also Psyche. v. 8, p. 263. Sept. 1898.

SCHWEINITZ, L. D. von. Conspectus fungorum in Lusatiae superioris agro Niskiensi crescentium e methodo Persooniana . . . Leipsic, J. B. De Albertini, 1805. 412 p. 12 pl.

Cum tabulis xii aeneis pictis species novas xciii sistentibus.

1806 *ASHE, Th[omas]. Memoirs of Mammoth, and various other extraordinary and stupendous bones of incognita, or non-descript animals, found in the vicinity of the Ohio, Wabash, Illinois, Mississippi, Osage and Red Rivers . . . [now in the Liverpool Museum.] Liverpool. Printed by G. F. Harris, 1806. 12, 60 p.

BARTON, B. S. Facts, observations, and conjectures relative to the generation of the opossum of North America, in a letter to Mr Roume of Paris. Phila., T. & G. Palmer, 1806. 14 p.

KONIG & SIMMS. Botanical dissertations published in the United States of America. (In Annals of Botany, ed. by K. & S. 1806. v. 2, p. 378–79.)

MELSHEIMER, F. V. A catalogue of insects of Pennsylvania by Fred. Val. Melsheimer, minister of the gospel. Hanover, York Co., Pa. Printed for the author by W. D. Lepper, 1806. 60 p.

See also Hist. Soc. York Co., Pa. Proc. & Coll. v. 1, no. 2, p. 17–26. 1903.

Enumerates 1363 species, 111 Genera.

First separate publication in America on insects.

M'MAHON, Bernard. The American gardener's calendar, adapted to the climate and seasons of the United States . . . Phila. 1806. 648 p.

2d ed. 1819; 11th ed. 1857, rev. by John Jay SMITH, 637 p. illus.

MOTT, Valentine. An experimental inquiry into the chemical and medical properties of the Statice limonium of Linnaeus. N. Y. T. & J. Swords, 1806. 58 p. pl.

*RAFFENAU-DELILE, Alire. Sur le jardin du Docteur Hosack à New York, et sur les arbres de l'Amerique septentrionale. Paris, 1806. (In Mus. Nat. Hist. Annal. v. 8, p. 476–77.)

See also ELGIN BOT. GARD. (1801).

SCOTT, Joseph. A geographical description of Pennsylvania . . . Phila. Printed by Robert Cochran, 1806. [148 p.] map.

SHECUT, J. L. E. W. Flora-Carolinensis; or, A historical, medical, and economical display of the vegetable kingdom; according to the Linnaean or sexual system of botany . . . in two volumes. Charleston, S. C. Printed for the author by J. Hoff, 1806. 4, 5–579, [5] p. 5 col. pl.

v. 1 [A-Fus]. v. 2 never published.

Each plate accompanied by leaf with descriptive letter press.

Rev. in Med. Repos. v. 11 (2d hexade, v. 5), p. 54–6. July, 1807.

WATKINS, T. Observations on the indigenous medicinal plants of America, and on the cultivation of those of foreign growth. (In Phil. Med. Museum. v. 2, p. 426–32. 1806.)

1807 BARTRAM, John, & Son. A catalogue of trees, shrubs, and herbaceous plants, indigenous to the United States of America; cultivated and disposed of by John Bartram & Son at their Botanical Garden, Kingsess, near Philadelphia. To which is added a catalogue of the foreign plants, collected from various parts of the globe. Phila. Printed by Bartram & Reynolds, 1807. 33 p.

Copy seen at Library Company of Philadelphia.

Another ed. 1828.

DRAYTON, John. The Carolinian florist. 1807.

In MS, 307 p. in the Library of the Univ. of South Carolina, Columbia, S. C. See Gee, Wilson. S. C. botanists. Univ. S. C. Bull. no. 72. p. 26–7. Sept. 1918.

MEASE, James. A geological account of the United States; comprehending a short description of their animal, vegetable, and mineral descriptions, antiquities and curiosities . . . Phila. Birch & Small, 1807. 4+496+14 p. 5 pl.

Rev. in Med. Repos. v. 11 (2d Hexade, v. 5), p. 42–4. July, 1807.

————. Observations on the American alligator. (In Phil. Med. Museum. v. 3, p. 145–49. 1807.)

[PURSH, F. T. Journal of a botanical excursion in the northeastern parts of the states of . . . Pennsylvania and New York, during the year 1807 . . . Phila. Brinckloe & Marot, printers, 1869. [2], 87 p.

Repr. Syracuse, N. Y. Onondaga Hist. Assoc. 1923. 113 p. + [5] p. (Ed. by Wm. M. Beauchamp.)

*ROBIN, C. C. Voyages dans l'intérieur de la Louisiane de la Floride occidentale, et dans les isles, de la Martinique et de Saint-Domingue, pendant les années 1802, 1803, 1804, 1805, et 1806 . . . contenant des nouvelles observations sur l'histoire naturelle la geographie, les moeurs, l'agriculture . . . suivis de la flore louisianaise. Paris, F. Buisson 1807. 3 v. pl. port. map.

Flora. v. 3, p. 311–538, repr. 1817–18 by RAFINESQUE (q. v.).

SCOTT, Joseph. A geographical description of the states of Maryland and Delaware . . . Phila. Printed by Kimber, Conrad & Co., 1807. 191 p. maps.

*VIEILLOT, L. J. P. Histoire naturelle des oiseaux de l'Amerique Septentrionale, contenant un grand nombre d' especes decrites ou figures pour la premiere fois . . . Paris, Desray, 1807. 2 v. in 1. 124 (131) col. pl. fold. map. folio.

v. 1, 2 p. ll, iv, 90 p., pl. 1–57.

v. 2, 1 p. l, ii, 74 p., pl. 57–124 (some duplicated).

See COUES (1), pt. 1, p. 596–97, for an analysis of species included.

1808 *ASHE, Thomas. Travels in America performed in 1806, for the purpose of exploring the rivers Alleghany, Monongahela, Ohio, and Mississippi, and ascertaining the produce and condition of their banks, and vicinity. London, R. Phillips, 1808. 3 v. [iv, iv, 328 p.; 2, 292 p.; 2, 310 p.]

Repr. Newburyport, [Mass.], for W. Sawyer & Co., by E. M. Blunt, 1808. 9, [11]–366 p. Also repr. (In Phillips, Sir Richard. Collection modern voyages. . . . Lond. 1805–10. 1st ser. v. 10, no. 2, 316, [4] p. See also SABIN, v. 1, p. 290–91.

BARTON, B. S. Some account of the Siren lacertina, and other species of the same genus of amphibious animals . . . in a letter to Mr J. G. Schneider of Saxony. [Phila. 1808.] 34 p. pl.

[Sabin states only 50 copies printed.]
Another ed., Phila. J. Harding, printer. 1821. 32 + [1] p. pl.
Preface 1st ed. dated Aug. 19, 1808. Letter written April 19, 1807.

WILSON, Alexander. American ornithology; or, The Natural History of the Birds of the United States: illustrated with plates; engraved and colored from original drawings taken from nature . . . Phila. Bradford & Inskeep, 1808–14. 9 v. 76 col. pl. 4°.
v. 8, completed by, and v. 9, written by George ORD.
Biographical sketch of Wilson, by Ord, in v. 9, pref. p. 13–48.
v. 1, 1808, i–vi + 158 p. pl. 1–9.
v. 2, 1810, iii–xii, 13–167 p. pl. 10–18.
v. 3, 1811, iii–xvi, 17–120 p. pl. 19–27.
v. 4, 1811, iii–xii, 13–100 p. pl. 28–36.
v. 5, 1812, iii–xii, 13–122 p. pl. 37–45.
v. 6, 1812, iii–xx, 13–102 p. pl. 46–54.
v. 7, 1813, iii–xii, 13–132 p. pl. 55–63.
v. 8, 1814, i–xi, 13–146 p. pl. 64–72.
v. 9, 1814, iii–lvii, 61–133 + 13 + 7 p. pl. 73–76.
List of subscribers, appx. 7 p.
For a bibliography of the various editions of the work, see Burns, F. L. Wilson Bull. Oberlin, Ohio. v. 21, p. 16–35, 132–51, 165–86. 1909.
See also v. 1, p. 240–41, of this Bibliography.
See also 1825: ORD, for a Supplement to this work.
See also Auk. v. 18, p. 216–18. Apr. 1901, for a list of the early editions.
See also British Mus. Nat. Hist. Catalogue of library. v. 5, p. 2332. 1915.
Volumes as they appeared were rev. in the U. S. in the Medical Repository as follows: v. 12, p. 155–62. July, 1808 (of v. 1); v. 14, p. 47–57. July, 1810 (of v. 2); v. 14, p. 379–86. Apr. 1811 (of v. 3); v. 15, p. 362–70. Apr. 1812 (of v. 4); v. 16, p. 169–74, 286–90. Mar. & July, 1813 (v. 5 & 6); v. 17, p. 247–54. June, 1814 (of v. 7 & 8).
For a comprehensive analysis of species, & notice of other editions, see COUES (1), pt. 1, p. 597–600, 613, 618, 629.

1809 ANON. A tour through part of Virginia, in the summer of 1808. In a series of letters, including an account of Harper's Ferry, the Natural Bridge, the new discovery called Weir's Cave, Monticello, and the different medicinal springs, hot and cold baths, visited by the author. N. Y. Printed for the author, 1809. 31 p.
Variously attributed to S. L. MITCHILL, Joseph Caldwell and T. Caldwell.

BARTON, B. S. Specimen of a geographical view of the trees and shrubs, and many of the herbaceous plants of North America, between the lati-

tudes of seventy-one and twenty-five . . . [Phila.], 1809. 10+26 p. pl. 4°.

RAMSAY, David. The history of South Carolina from its first settlement in 1670, to the year 1808. Charleston, S. C., David Longworth, for the author, 1809. 2 v. fold map, plan.
v. 1, xii, 478 p.; v. 2, iv, 602 p.
Nat. Hist. of S. C. v. 2, p. 272–350.
Another ed. Newberry, S. C., pub. by W. J. Duffie, 1858. 2 v. in 1. [viii, 274; 307 p. 2 maps.] Nat. Hist. S. C. v. 2, p. 152–95.

WOODHOUSE, James. An account of the Perkiomen zinc mine, with an analysis of the ore. (In Baltimore Med. & Phys. Recorder. v. 1, p. 154–57. 1809.)

1810 (The) AGRICULTURAL MUSEUM; ed. by David Wiley. Georgetown, [D. C.], W. A. Rind, July 1810–May 1812. v. 1–2, no. 11.
See BARNETT, C. R. The A. M. an early American Agricultural Periodical. (In Agric. Hist. v. 2, p. 99–102. Apr. 1928)

BARTON, B. S. On the torpidity of animals. Lond. 1810. (In Phil. Mag. ed. by Tilloch. v. 35, p. 241–47).

CUMING, Fortescue. Sketches of a tour to the western country, through the states of Ohio and Kentucky; a voyage down the Ohio and Mississippi River, and a trip through the Mississippi Territory and part of West Florida, commenced at Philadelphia in the winter of 1807, and concluded in 1809; with an appendix containing some interesting facts, together with a notice of an expedition through Louisiana. Pittsburgh, Cramer, Spear & Eichbaum, 1810. 504 p.
Rev. in Med. Repos. v. 15 (3d Hexade, v. 3), p. 54–6. July, 1811.
Repr. (In THWAITES, R. G., ed. Early western travels: 1748–1846. Cleveland, A. H. Clark co., 1904. 377 p. v. 4.)

DE LA MOTTA, Jacob. An investigation of the properties and effects of the Spiraea trifoliata of Linnaeus, or Indian physic. Phila. Jane Aitken, 1810. 44 p.
Inaugural dissertation, Univ. Pa.

DRAKE, Daniel. Notices concerning Cincinnati. Cincinnati. Printed for the author at the press of W. Browne & Co., 1810. 60+4 p.
Rev. in Med. Repos. v. 14 (3d Hexade, v. 2), p. 169–75. Oct. 1810.
Repr. in Hist. & Philos. Soc. Ohio. Quart. Pub. v. 3, no. 1–2, 60 p. 1908.

HAYDEN, H. H. [Mineralogical and geological description of the country surrounding Baltimore to the extent of about nine miles.] (In Baltimore Med. & Philos. Lyceum. v. 1, p. 255–71. 1810.)

Extracts & rev. in Amer. Miner. Jour. v. 1, no. 4, p. 243–48. 1814.

LAMBERT, John. Travels through Lower Canada and the United States of North America, in the years 1806, 1807 and 1808 . . . London, Phillips 1810. 3 v. illus. 18 pl. map.

v. 1, xxiv, 496; v. 2, ix, [1], 494 p.; v. 3, [2], 506 p.

See also SABIN, v. 10, p. 43.

MICHAUX, F[rançois] André. Histoire des arbres forestiers de l'Amerique Septentrionale, considéreés principalement sous les rapports de leur usage dans les arts et de leur introduction dans le commerce, ainsi que d'apres les avantages qu'ils peuvent offrir aux gouvernemens en Europe et aux personnes qui veulent former de grandes plantations . . . Paris, De l'Imprimerie de l'Haussmann et D'Hautel, 1810–13. 3 v. 145 col. pl. 4°.

v. 1, [8] + 222, [1] p. 10 + 14 col. pl. 1810–11.

v. 2, [4], 278 p. 26 + 24 col. pl. 1812.

v. 3, [4], 408 + [2] p. 63 (11 + 12 + 11 + 11 + 13 + 5 pl.) col. pl. 1813.

For the first American ed., see 1817: MICHAUX.

See also SABIN, v. 12, p. 138–39. The first part "Histoire des Chênes de l'Amérique Septentrionale . . ." Pub. Paris, same pub. as above, 1811. [4], 128, [1] p. English transl. of this part, 1817: MICHAUX, q. v.

1811 BARTON, B. S. On moles. (In Phila. Soc. Promoting Agric. Mem. v. 2, p. 137–38. 1811). Rd Jan. 9, 1810.

IVES, Eli. Vegetable productions . . . (In DWIGHT, Timothy. A statistical account of the city of New Haven. 1811. p. 29–34.)

MACLURE, William. Suite des observations sur la géologie des Etats-Unis. (In Jour. de Physique, de Chimie et de l'histoire naturelle. v. 72, p. 137–65. 1811.)

WATERHOUSE, Benjamin. The botanist: being the botanical part of a course of lectures on natural history, delivered in the University of Cambridge, together with a Discourse on the principle of vitality. Bost. J. T. Buckingham, 1811. xiv, [15]. –263 p.

Rev. in Med. Repos. v. 15, (3d Hexade, v. 3), p. 370–76. April, 1812.

1812 BARTON, B. S. A memoir concerning an animal of the class of Reptilia or Amphibia, which is known in the United States by the names of alligator and hellbender. Phila. 1812. 1 pl.

From SABIN.

————, Flora virginica: sive plantarum, praecipue indigenarum, virginiae historia inchoata. Iconibus illustrata. Studio et cura B. S. B. . . . pars prima Philadelphia, typis D. Heartt, 1812. xii, iv, 74 p. 24 cm.

Intended as new ed. of the "Flora Virginica of Clayton and Gronovius. Copies in Library Co. of Phila., Acad. Nat. Sci. Phila., & Amer. Phil. Soc. For complete account, see F. W. Pennell, Bartonia, no. 9, p. 17–34. 1926.

CUTLER, Jervase. A topographical description of the State of Ohio, Indiana territory, and Louisiana, comprehending the Ohio and Mississippi Rivers and their principal tributary streams; the faces of the country, soils, waters, national productions, animal, vegetable and mineral . . . Bost. Charles Williams, 1912. 219 p. pl. map.

See also SABIN, v. 5, p. 160–61.

JONES, Charles. A candid examination into the origin of the difference of colour in the human family. . . . Phila. Printed for the author, 1812. 36 p.

WEBSTER, Noah, Jr. History of animals designed for the instruction and amusement of persons of both sexes. New Haven, Howe & DeForest, 1812. 247 p.

1813 ANDERSON, Andrew. An inaugural dissertation on the Eupatorium perfoliatum of Linnaeus. N. Y. 1813. 75 p.

DODDRIDGE, Joseph. A treatise on the culture of bees in which is given a description of the bee-house and hives, the natural history of the bees, directions for managing them at the time of swarming; rules for taking the honey without destroying the bees and for keeping them through the winter; an account of the wars of the bees; general observations on the common mode of cultivating the bees. St. Clairsville, Ohio, Alexander Armstrong, 1813. 32 p.

Copy seen in Library Phila. Acad. Nat. Sc.

MUHLENBERG, [G.] Henry [E.] Catalogus plantarum Americae Septentrionalis, huc usque cognitarum indigenarum et cicurum; or, A catalogue of the hitherto known native and naturalized plants of North America, arranged according to the sexual system of Linnaeus. Lancaster, Pa. Printed by William Hamilton, 1813. iv, 112 p. Preface dated Aug. 3, 1813.

2d ed. corr. & enlarged. Phila. Solomon W. Conrad, 1818. iv, 122 p.

Rev. in Med. Repos. v. 17 (n. s. v. 2), no. 2, p. 156–58. 1814.

[NUTTALL, Thomas]. A catalogue of new and interesting plants collected in Upper Louisiana, and principally on the river Missourie, for sale at Messrs Fraser's nursery for curious American plants. . . . Lond. 1813.

Repr. in Pittonia. Berkeley, Cal., & Wash., D. C., Dec. 1890. v. 2, p. 114–19. Ed. by E. L. Greene. Also in Jour. Botany. v. 37, p. 481–87. 1899. (By James Britten.)

RAFINESQUE, C. S. 1) Description de quelques végetaux de Sicilie et des Etats-Unis; 2) Champignons des Etats-Unis. (In Des Vaux's Jour. de Botanique. Paris, 1813. p. 235–37.)

SMITH, Peter. The Indian doctor's dispensatory, being Father Smith's advice respecting diseases and their cure; consisting of prescriptions. . . . and a description of medicines simple and compound. . . . Cincinnati, 1813. 108 + [4] p.

1814 BARTON, B. S. Archaeologicae Americanae Telluris Collectanea et Specimena; or, Collections with specimens for a series of memoirs on certain extinct animals and vegetables of North America, together with facts and conjectures relative to the ancient condition of the lands and waters of the continent, pt. 1. Phila., 1814. 1 pl.

From SABIN, v. 1, p. 505.

BIGELOW, Jacob. Florula Bostoniensis; A collection of plants of Boston and its environs, with their generic and specific characters, synonyms, descriptions, places of growth, and time of flowering, and occasional remarks. Bost. Cummings & Hilliard. 1814. viii + 268 p.

2d ed. enl. & containing "A glossary of botanical terms." Bost. Cummings & Hilliard. 1824. [7] + 422 p. + [1] p.

3d ed. on t. – p. "vicinity" is substituted for "environs." Bost. Little & Brown, 1840. [1], 6 + 468 p.

Rev. of 1st & 2d ed. in North Amer. Rev. v. 13, p. 100–34. 1821; & v. 20, p. 221–24. Jan. 1825.

Also rev. by Rafinesque in Amer. Monthly Mag. & Critical Rev. v. 2, p. 342–44. March, 1818. See also for 2d ed. Pittonia. Berkeley, Cal., 1890. v. 2, p. 91–6.

BRACKENRIDGE, H. M. Views of Louisiana, together with a Journal of a voyage up the Missouri River in 1811. Pittsburgh, Cramer, Spear & Eichbaum, 1814. 304 p.

Repr. Baltimore, printed by Schaeffer & Maund, 1817. 232 p.

German ed. Weimar, 1818.

Repr. in v. 6 of Thwaites, R. G. ed. Early western travels, 1748–1846. Cleveland, 1904–7.

[CARR, Robert]. Catalogue of trees, shrubs and herbaceous plants, indigenous to the United States, cultivated and for sale at Bartram's Botanical Gardens, Kingsess, to which is added a catalogue of foreign plants, collected from various parts of the globe. Phila., 1814. 63 p.

A description of Bartram's Botanical Garden may be found in Garden & Forest. 1894. v. 7, p. 332.

The "Journal," repr. Balt. Coale & Maxwell, 1815. 247 p. Another ed. Balt. 1816. viii, 246 p.

HENRY, Samuel. A new and complete American family herbal, wherein is displayed the true properties and medical virtues of the plants, indigenous to the United States of America . . . N. Y., S. Henry, 1814. vi, 7–393 p. illus.

MEASE, James. Introductory lecture to a course of lectures upon comparative anatomy, and the diseases of domestic animals . . . Phila. 1814. 51 p.

Delivered before Phila. Soc. Promoting Agric. Nov. 3, 1814. Appeared in (its Mem. v. 3, pref. p. 19–67. 1814).

MITCHILL, S. L. Report, in part, of . . . on the fishes of New York . . . N. Y. Printed by D. Carlisle, Jan. 1, 1814. 28 p. 6″ x 4.8″. 24 mo.

Repr. & ed. by Theodore GILL. Wash. 1898. 10 + 30 p. Report on p. [1]–30. Contents also given in DEAN. Bibliography of fishes, v. 2, p. 144.

PURSH, Frederick. Florae Americae Septentrionalis; or, A systematic arrangement and description of the plants of North America. Containing, beside what have been described by preceding authors, many new and rare species collected during twelve years travels and residence in that country. Lond. Printed for White, Cochrane & co., 1814. 2 v. 24 col. pl.

v. 1, xxxvi + 358 p.; v. 2, 1 + [359–751 p.] Index auctorum, pref. p. 27–36. 2d. ed. Printed for J. Black. Lond. 1816. 2 v. in 1. Rev. in Amer. Monthly Mag. & Critical Rev. v. 2, p. 170–76. Jan. 1818, by Rafinesque. Also rev. in Med. Repos. v. 18 (n. s. v. 3), no. 3, p. 277–80. Aug. 1816.

See also Lewis & Clarke Exped. (1804). See also BARNHART, J. H. Dates of Pursh's "Flora." (In Torreya. v. 4, p. 132–36. Sept. 1904).

[RICH, Obadiah.] A synopsis of the genera of American plants, according to the latest improvements on the Linnaean system, with the new genera of Michaux and others; intended for the use of students in botany. Georgetown, D. C. Printed by J. M. Carter for J. Milligan, 1814. viii, 167 p.

See DARLINGTON, Wm. Reliquiae Baldwinianae. Phila. 1843. p. 143. (Letter of Muhlenberg to Baldwin. Aug. 2, 1814).

*SMITH, J. E., and BIGELOW, Jacob. An introduction to physiological and systematical botany, by Sir James E. Smith; first American edition with notes by Jacob Bigelow. Bost. Bradford & Read, 1814. 415 p. 15 pl.

1815 BARTON, W. P. C. Flora Philadelphicae Prodromus, plantarum quae hactenus exploratae fuere, queaque in ipso opere ulterius

describentur, exhibens, enumerationem; or, Prodromus of the Flora Philadelphica, exhibiting a list of all the plants to be described in that work which have as yet been collected. Phila. Maxwell, 1815. 100 p. 4°.

Rev. by Rafinesque in Amer. Mthly. Mag. & Critical Rev. v. 1, p. 356–59. Sept. 1817.

BARTRAM, William. Observations on the Pea fly or Beetle, and fruit curculio. (In Phila. Soc. Prom. Agric. Mem. v. 1, p. 317–23. 1815).

Rd July 14, 1789 & additions made in 1808.

[*CORREA DA SERRA, J. F.] Reduction of all the genera of plants contained in the Catalogus Plantarum Americae Septentrionalis of the late Dr Muhlenberg to the natural families of Mr De Jussieu's system; for the use of the gentlemen who attended the course of elementary and philosophical botany in Philadelphia, in 1815. Phila. S. W. Conrad, 1815. iv, [5]–16 p.

Rev. in Med. Repos. v. 18 (n. s. v. 3), no. 3, p. 280. Aug. 1816.

DRAKE, Daniel. Natural and statistical view; or, Picture of Cincinnati and the Miami Country . . . Cincinnati, Looker & Wallace, 1815. 251 p. maps.

ELY, William, and MUHLENBERG, Henry. Venomous qualities of the water-hemlock, or, Cicuta maculata, an indigenous plant of North America. (In Med. Repos. v. 17, p. 303–4. 1815)

Should have been included in v. 2, p. 75 of this Bibliography.

JONES, Gen. Calvin. A description of Wier's Cave in Augusta County, Virginia . . . Albany, Printed by H. C. Southwick. N. Y. 1815. 8 p. fold. map.

Com. to the editor of the Star, Raleigh, N. C.

LOWELL, James. Remarks on the canker worm. (In Mass. Agric. Repos. & Jour. v. 3, p. 316–18. 1815).

MACBRIDE, James. On the power of Sarracenia adunca to entrap insects. (In Linn. Soc. London. Trans. v. 12, p. 48–52. 1817). Rd Dec. 19, 1815.

MILLER, Silvanus. A letter to De Witt Clinton on the fossil bones of the Mammoth, discovered in the state of New York, with some observations on the adjacent country. N. Y., Nicholas Van Riper, printer, 1815. 15 p.

Repr. for son and grandchildren. N. Y., King, 1900.

ORD, George. A reprint of North American zoology, by George Ord; being an exact reproduction of the part originally compiled by Mr. Ord for Johnson and Warner, and first published by them in their 2d American edition of Guthrie's Geography; in 1815; taken from Mr. Ord's private annotated copy; to which is added an appendix on the more important and historic questions involved,

by Samuel Rhoads. Haddonfield, N. J. Pub. by the editor, 1894. 7–10, 290–361, 90 p. port.

See also COUES, (1), pt. 1, p. 603.

RAFINESQUE, C. S. Autikon botanikon, Icones plantarum select. nov. vel rariorum plerumque Americana, interdum african, europ. asiat. oceanic, etc., centur. xxv.—Botanical illustrations by select specimens or self-figures in 25 centuries of 2500 plants, trees, shrubs . . . etc. . . . from North America and some other regions . . . in five parts of five centuries each of text with 25 volumes folio of self-figures. Phila. 1815–40. 3 pts. p. 1–200.

pt. 1, [2], 3–72 p.; pt. 2, p. [73]–140; pt. 3, p. [141]–200.

Text only published. Latin & English. pt. 1–3 contain centuries 1–15. Collected, ascertained and described between 1815 and 1840.

See also F. W. PENNELL, in Torrey Bot. Club. Bull. v. 48, p. 89–96. Mar. 1921. "Unrecorded genera of Rafinesque."

1816 BIGELOW, Jacob. Some account of the White Mountains of New Hampshire . . . Bost. 1816. 18 p. (In New Eng. Jour. Med & Surg. for Oct. 1816.)

CLEAVELAND, Parker. An elementary treatise on mineralogy and geology; being an introduction to the study of these sciences, and designed for the use of pupils—for persons attending lectures on these subjects—and as a companion for travelers in the United States of America . . . Boston, Cummings & Hilliard, 1816. 12 + 668 p. 5 pl. col. map.

Rev. in New England J. Med. & Surg. v. 6 (n. s. v. 1), p. 283–97. July, 1817. Also rev. in. Amer. Monthly Mag. & Critical Rev. v. 1, p. 183–87. July, 1817. Also rev. in North Amer. Rev. v. 5, p. 409–29. Sept. 1817. Also rev. in Amer. J. Sc. v. 1, p. 35–52. July, 1818.

2d ed. Bost. Cummings & Hilliard, 1822. 2 v. map. (12 + 480, [481–818] p. + [1] p., pl. map).

DARBY, William. A geographical description of the state of Louisiana: presenting a view of the soil, climate, animal, vegetable and mineral productions; illustrative of its natural physiognomy, its geographical configuration, and relative situation; with an account of the character and manners of the inhabitants; being an accompaniment to the map of Louisiana. Phila. Printed for the author by J. Melish, 1816. 9 l. xvii, 270 p. map.

2d ed. enl. & improved. N. Y. James Olmstead, 1817. xi, 356, (4), p. map.

DANA, J. F. Some account of the Grand Monadnock. (In New England J. Med. & Surg. v. 5, p. 252–60. 1816.)

GREENLEAF, Moses. A statistical view of the District of Maine; more especially with reference to the value and importance of its interior . . . Bost. Cummings & Hilliard, 1816. 154 p.

Abstract in Maine Bd. Agric. 35th Ann. Rept. for 1892. Appx. p. 6–10.

PECK, W. D. Important communication relative to the canker-worm. (In Mass. Agric. Repos. & Jour. v. 4, p. 89–92. Jan. 1816.)

RAFINESQUE, C. S. Circular address on botany and zoology, followed by the prospectus of two periodical works: Annals of nature, and Somiology of North America. Phila. Printed . . . by S. Merritt, 1816. 36 p.

List of author's works, p. 12–7.

SAY, Thomas. Conchology. . . . (In Nicholson. Encyclopaedia of arts & sciences. Phila. 1816–17. v. 2, p. 254.)

2d ed. includes this article in v. 4, 1818; 3d ed. in v. 4, 1819. 16 p. "Also distributed with title 'Descriptions of land and fresh-water shells of the U. S.'" BINNEY, p. ——. (Under Annot. Bibliog.)

WARDEN, D. B. Florula Columbiana sive enumeratio plantarum in territoriae Columbiae sponte nascentium. (In his A chorographical and statistical description of the District of Columbia. Paris, 1816. p. 191–209.)

*WERNER, A. G. On geological systems. (In North Amer. Rev. v. 3, p. 209–12. July, 1816.)

WILLIAMSON, Hugh. Observations on the hypotheses of some modern writers, that America has been peopled by a distinct race of men and animals; with some proofs arising from the natural history and appearances of the new continent in favour of the Mosaic account of the Deluge. (In Tilloch. Philos. Mag. v. 38, p. 205–22. 1816.)

1817 BARTON, W. P. C. Vegetable materia medica of the United States; or, Medical botany, containing a botanical, general and medical history of the medicinal plants indigenous to the United States . . . Phila. M. Carey & Son, 1817–18. 2 v. in 1, col. pl. 4°.

v. 1, 1817. xv, 17–273 p. 24 pl.

v. 2, 1818. xvi, 9–243 p. 26 pl. 1 l.

Rev. in North Amer. Rev. v. 6, p. 344–68. Mar. 1818. 2d ed. 1825.

BIGELOW, Jacob. American medical botany, being a collection of the native medicinal plants of the United States, containing their botanical history and chemical analysis, and properties and uses in medicine, diet and the arts, with coloured engravings. Bost. Cummings & Hilliard, 1817–20. 6 pts. in 3 v. 60 col. pl.

Rev. in North Amer. Rev. v. 13, p. 100–34. 1821, & v. 6, p. 344–6. Mar. 1818.

v. 1, 1817, pt. 1, xi, [17]–110, pl. 1–10
pt. 2, p. [113–98], pl. 11–20
v. 2, 1818, pt. 1, xvi, p. [15]–104, pl. 21–30
pt. 2, p. [107–200], pl. 31–40
v. 3, 1820, pt. 1, x, p. [11]–98, pl. 41–50
pt. 2, p. [101–98], pl. 51–60

*BRADBURY, John. Travels in the interior of America, in the years 1809, 1810, and 1811; including a description of Upper Louisiana, together with the states of Ohio, Kentucky, Indiana, and Tennessee, with the Illinois and western territories, and containing remarks and observations useful to persons emigrating to those countries. Liverpool. Printed for the author by Smith & Galway, & London, Pub. by Sherwood, Neely & Jones, 1817. xii, 1, [9]–364 p.

2d ed. Lond. 1819. xiv, [17]–346 p. fold map.
Repr. Cleveland, 1904. 15, [25]–320 p. fold map.
(In Thwaites, R. G. ed. Early western travels. v. 5.)

[EATON, Amos.] transl. A botanical dictionary, being a translation from the French of Louis Claude Richard . . . with additions from Martyn, Smith, Milne, Wildenow, Acharius . . . New Haven, H. Howe, 1817. 12°. vi, [7]–14, [154] p.

3d. ed. Albany, Webster & Skinner, 1828. 124 p.

————. Manual of botany for the northern states . . . by the members of the botanical class in Williams' College, from a manuscript system, compiled . . . by the author of Richard's Botanical dictionary. Albany, Webster & Skinner, 1817. 6 + 164 p.

2d ed. entitled Manual of botany for the Northern and middle states. Albany, 1818. 12 + 524 p.

3d ed. Albany, 1822, 536 p.; 4th ed., 1824. 539 p. 5th ed. 1829. 451 + 63 + [69] p. 6th ed., 1833, 401 + 137 p. 7th ed., 1836, 672 + 125 p. 8th ed. with WRIGHT, John, 1840. viii, 625 p. illus (see under 1840—EATON & WRIGHT).

1st ed. rev. by Rafinesque in Amer. Monthly Mag. & Critical Rev. v. 1, p. 426–30. Oct. 1817.

HAYWARD, George. Some account of an animal belonging to the genus Cervius. (In New England J. Med. & Surg v. 6, p. 153–56. 1817.)

HEUSTIS, J. W. Physical observations, and medical tracts and researches, on the topography and diseases of Louisiana. N. Y. Printed by T. & J. Swords, 1817. 165 p.

LONG, S. H. Voyage in a six-oared skiff to the Falls of Saint-Anthony in 1817 . . . St. Paul, Minn., 1860. (In Minn. Hist. Soc. Coll. v. 2, pt. 1, p. [7]–88.)

Reprinted from the MSS owned by Edwin JAMES.

MEADE, William. An experimental inquiry into the chemical properties and medicinal qualities of the principal mineral waters of Ballston and Saratoga in the state of New York, with direction for the use of those waters in the various diseases to which they are applicable . . . to which is added an appendix containing a chemical analysis of the waters of the Lebanon Spring in the state of New York. Phila. Harrison Hall, 1817. 15+195 p. pl.

1817 MICHAUX, F[rançois] André. The North American sylva; or, A description of the forest trees of the United States, Canada and Nova Scotia . . . to which is added a description of the most useful of the European forest trees . . . Paris. Printed by C. D'Hautel; Phila., Thomas Dobson, 1817–19. 3 v. 150 (156) col. pl. 4°.

This is the translation of Michaux's work originally written in French in 1810 (q. v.). Translated by Augustus L. Hillhouse. The section on OAKS was printed in 1817. In 1818–19 the work was reprinted in the U. S. and France simultaneously.

See also NUTTALL'S "North Amer. Sylva," under 1842. See also SABIN, v. 12, p. 138.

Due to the irregularities and various editions of the work there is given below a collation of copies of the work to be found in the Library of Congress, Arnold Arboretum, and the U. S. Dept. Agriculture, prepared by Miss Alice ATWOOD, bibliographer of the library of the U. S. Dept. Agric.

NORTH AMERICAN SYLVA

Collation

1817

Issue of portion on Oaks. Philadelphia. Sold by Thomas Dobson–Solomon Conrad, Paris, printed by C. d'Hautel 1817.

2 p. l., xii, 135 [1] p. pl. 1–28.

(half-title, t.-p., introd., text, table*)

The copy of this portion at the Arnold Arboretum has a pencil note on the fly-leaf signed C. E. F. (Charles E. Faxon) stating that this translation was later cancelled and that of Hillhouse substituted. Who made this first translation has not been discovered. It may have been Michaux himself.

vol. 1. 1819

Library of Congress. Paris, printed by C. d'Hautel 1819.

2 p. l., xii, 268, 1 l. pl. 1–50.

(half-title, t.-p., introd., text)

p. 136 is a table, also p. 267–268; the leaf at the end is blank save for a note at the foot: "N. For the translation of the present volume I

am indebted to my friend Augustus L. Hillhouse, of Connecticut, F. A. M.''

The text of p. 1–135 is the same as the 1817 issue, that is, it is not the Hillhouse translation.

Arnold Arboretum copy. Imprint same as above.
2 p. l., v, 268 p. (p. 112–136 being elided).
(half-title, t.-p., dedication & pref., text)

This is the Hillhouse translation.**

Two copies are quoted by Sabin, the first is like the Library of Congress copy, the second has the following collation: [6], v, 268 p.

vol. 2. 1818
Library of Congress. Philadelphia. Sold by Thomas Dobson, etc., (same as 1817 imprint) 1818.
2 p. l., 116 p., 2 l., [117]–250 p. pl. 51–100.
(half-title, t.-p., text, table, t.-p., text (incl. table)

The second t.-p. is for the ''Fourth half-volume''

Arnold Arboretum copy.
2 p. l., 250 p.
(half-title, t.-p., text (incl. table)

Copies quoted by Sabin.
2 p. l., xii, 268, [1], p.
2 p. l., 247 p.

vol. 3. 1819
Library of Congress. Imprint same as v. 2 1819.
2 p. l., 82 p. 2 l., [83]–194 p., 2 l., [195]–285, [1] p. pl. 101–156.
(t.-p., text, table, t.-p., text, table, t.-p., text (incl. general table), errata.

Extra t.-ps. for Sixth and Seventh half-volumes.

* Table in every case means index.

** The Hillhouse translation by a brief mode of expression seems to have been able to condense the 135 pages on the Oaks into 112, numbering the latter page 112–136 to conform with the second part of the volume which begins at p. 137.

vol. 3. Imprint same as vol. 2. 1819.
Arnold Arboretum copy.
2 p. l., 82 p. 1 l., [83]–149 p., 1 l., 195–285, [1] p.
(half-title, t.-p., text, table, text, table, text (incl. general table), errata.

Plates are numbered: 101–133, 1, 135, 2–3, 138, 4–10, 146, 11–15, 151–156.

Copies quoted by Sabin for vol. 3 are alike; 2 p. l., 268, [1] p.

It is probable that Sabin took no account of the part t.-ps. and tables in midst of text.

2 vol. edition. 1819

U. S. Dept. of Agriculture Library.

vol. 1. Paris. Printed by C. d'Hautel 1819.

4 p. l., iii–v, 383 (*i.e.* 385) p., 1 l., pl. 175.

(half-title, t.-p., dedication (to Jas. Hillhouse), pref. note by Michaux, pref. by A. L. Hillhouse, text (incl. introd. (p. 1–i), main text (p. 0–111, 112/136–382), table (p. 383–383 (*i.e.* 385), table (11.)

vol. 2. Imprint same as vol. 1.

2 p. l., 417, [1] p. pl. 76–156.

(half-title, t.-p., text (incl. general table) errata)

Later edition, with notes by Jay J. Smith.

First published at Philadelphia by R. P. Smith, 1853; a later ed. published at the same place in 1857 by D. Rice & A. N. Hart, states in the preface that the "whole of the sheets of the last imprint were destroyed by fire at the bindery," the original French copper plates were fortunately in another building and so were saved. "This enabled the new publishers to issue the work in a much improved style, and has allowed opportunity for additional notes and remarks."

Vol. 1: The text is the same for both editions, save for the portion on the oaks, which has notes in square brackets in the 1857 ed., not in that of 1853.

Vol. 2: Notes appear in the 1857 edition signed Jan. 1857, as well as unsigned additions to notes which had appeared in the 1853 ed.

MUHLENBERG, [G. H. E.] D. Henrico. Descriptio uberior graminum et plantarum calamariarum Americae Septentrionalis indigenarum et cicurum . . . Phila. S. W. Conrad, 1817. 2+ 295 p.

Preface dated, Lancaster, Pa., July, 1816.

PECK, W. D. On the insects which destroy the young branches of the pear-tree and the leading shoot of the Weymouth pine. (In Mass. Agric. Repos. & Jour. v. 4, p. 205–11, pl. Jan. 1817)

RAFINESQUE, C. S. & ROBIN, C. C. Florula Ludoviciana; or, A flora of the state of Louisiana; tr., revised and improved from the French of C. Robin. N. Y., Wiley 1817. 178 p.

See 1807: *ROBIN, C. C.

SAY, Thomas. American entomology; or, Descriptions of the insects of North America, illustrated by colored figures. Phila. 1817. 6 col. pl.

Includes descriptive letter-press.

1818 BARTON, B. S. Some account of the Tantalus ephouskyca, a rare American bird. (In Linn. Soc. London. Trans. v. 12, p. 24–7, pl. 1818)

BARTON, W. P. C. Compendium florae Philadelphicae: containing a description of the indigenous and naturalized plants found within a circuit of ten miles around Philadelphia. Phila. M. Carey & Sons, 1818. 2 v. 12 mo.

Preface dated July 11, 1818. v. 1, 6+251 p.; v. 2, 234 p. Index, v. 2, p. 220–34.

DARBY, William. The emigrant's guide to the western and southwestern states and territories; comprising a geographical and statistical description of the states of Louisiana, Mississippi, Tennessee, Kentucky, and Ohio; the Territories of Alabama, Missouri, Illinois and Michigan; and the western parts of Virginia, Pennsylvania, and New York . . . N. Y., Kirk & Mercein, 1818. 6, 311 p. 2 maps.

See also North Amer. Rev. v. 8, p. 268. 1819.

BLAND, Theodorick. Report on South America . . . Wash. 1818. 147 p. (In U. S. 15th Cong. 2 sess. H. Ex. Doc. v. 2, no. 48), Serial no. 18.

Argentine, Chile, etc.

*COBBETT, William. A year's residence in the United States of America, treating of the face of the country, the climate, the soil, the products, the mode of cultivating the land . . . N. Y. Printed for the author by Clayton & Kingsland 1818. In 3 pts. 432 p. 12 mo.

Numerous other editions. See also SABIN, v. 4, p. 189–90.

EATON, Amos. An index to the geology of the northern states, with a transverse section from Catskill Mountain to the Atlantic. Prepared for the geological classes at Williams College, Northampton, Belchertown, Leicester, and Worcester, Mass. Leicester, Mass. Printed by H. Brown, 1818. 52 p. 1 fold. pl.

2d ed., Troy, N. Y., Published under the direction of the Troy Lyceum, 1820. xi, 1, 103–286 p. 2 pl. Rev. in North Amer. Rev. v. 11, p. 225–39, Oct. 1820; & in Amer. Mthly Mag. & Critical Rev. v. 3, p. 175–78. July, 1818, by C. S. Rafinesque.

Rev. in Amer. J. Sc. v. 1, p. 69–70. July, 1818.

ESSEX AGRICULTURAL SOCIETY. Transactions. Salem, Mass., 1818–date.

HILLHOUSE, A. L. The Olive tree . . . Phila. 1818. (In MICHAUX, F. A. N. A. Sylva. 1817–19. v. 2, p. 166–204, pl. 37)

Repr. as "Description of the European olive tree. [Paris, 1818.] 43 p. 1 pl.

2d ed. "An essay on the history and cultivation of the European olive-tree. Paris, 1820. [4]+54 p. 1 pl.

LOWELL, John. Remarks on the gradual diminution of the forests of Massachusetts, and the importance of an early attention to some effectual remedy, with extracts from the work of Mr Michaux on the forest trees of North America. (In Mass. Agric. Repos. & Jour. v. 5, p. 32–61. Jan. 1818)

MACBRIDE, James. Some account of the Lycoperdon solidum of the Flora Virginica, the Lycoperdon cervinum of Walter. (In Linn. Soc. London. Trans. v. 12, p. 368–71. 1818)

*MADOC, J., and DAVIS, Benjamin. A new and complete universal natural history, by J. Madoc; improved and enlarged by the addition of a great number of animals not noticed in the London edition, by Benjamin Davis. Phila. 1818. 2 v. 57 pl.

MITCHILL, S. L. Cuvier's "Essay on the theory of the earth" . . . to which are now added "Observations on the geology of North America; illustrated by the description of various organic remains, found in that part of the world." N. Y., Kirk & Mercein, 1818.

Rev. in Amer. J. Sc. v. 1, p. 68–9. July, 1818. & in Amer. Mthly Mag. & Critical Rev. v. 3, p. 51–9. May, 1818.

————. An encouragement to the introduction of the date-bearing palm in the United States, in a letter to Hon. Joseph Meigs. . . . Sept. 26, 1818. (In Amer. Mthly Mag. & Crit. Rev. v. 4, p. 49–50. Nov. 1818)

Another article on the same subject by William DARBY, in v. 4, p. 217–221. Jan. 1819. (These papers should have appeared on p. 234 of v. 2 of this Bibliography.)

NUTTALL, Thomas. The genera of North American plants, and a catalogue of the species to the year 1817 . . . Phila. Printed for the author by D. Heartt, 1818. 2 v. v. 1, viii + 312 p.; v. 2, 254 + 10 + [4] p.

Rev. by C. S. Rafinesque in Amer. Mthly Mag. & Critical Rev. v. 4, p. 184–96. Jan. 1819.

Dedicated to Joseph Correa de Serra. Pref. dated May 27, 1818.

PARTRIDGE, Alden. A journey to the camel's rump and the Mansfield, the two most elevated peaks of the Green Mountains, in the state of Vermont, with physical and barometrical observations . . . in a letter to . . . Dr S. L. Mitchill . . . Sept. 18, 1818. (In Amer. Mthly Mag. & Crit. Rev. v. 4, p. 50–4. Nov. 1818)

This item should have appeared in v. 2, on p. 234.

PECK, W. D. Some notice of the insect which destroys the locust tree. (In Mass. Agric. Repos. & Jour. v. 5, p. 67–73, 1 pl. Jan. 1818)

SAY, Thomas. Hessian fly; grain moth, cut worm. (In Phila. Soc. Promoting Agric. Mem. v. 4, p. 224–26, 236–37. 1818)

1819 ANON. A geological section of the west bank of the Hudson River from Sandy Hook to Newburgh. (In North Amer. Rev. v. 10, p. 218. 1820) Written 1819. Citation of a new publication.

[BALDWIN, William] Journal of William Baldwin, botanist of the first part of the expedition from Pittsburgh to the Rocky Mountains in 1819–20, under the command of Major Stephen H. Long. 1819. 149 p.

MS at the Library of the N. Y. Bot. Garden.
See also Long Exped. to Rockies (1819)

BARTON, W. P. C. Syllabus of the lectures delivered on vegetable materia medica, and botany, in the University of Pennsylvania . . . Phila. J. R. A. Skerrett, 1819. 12 p.

DARBY, William. A tour from the city of New-York to Detroit, in the Michigan territory, made between the 2d of May and 22d of September, 1818 . . . [with] notices of the . . . the natural history and geography . . . N. Y. Kirk & Mercein, 1819. 288, lxxiii, (7), 1 p. map.

*GOLDIE, John. Diary of a journey through Upper Canada and some of the New England states, 1819. [Toronto, Wm. Tyrell & co., 1897.] 56 p. port. pl.

LOCKE, John. Outlines of botany, taken chiefly from Smith's Introduction, containing an explanation of botanical terms, and an illustration of the system of Linnaeus; also some account of the natural orders, and the anatomy and physiology of vegetables. Bost. 1819. 13 + [3] + 161 p. 17 pl.
Another ed. Bost. 1825

LONG, S. H. Extract from a report of . . . [respecting the practicability of uniting by a canal, the waters of the Illinois River, and those of Lake Michigan] . . . Wash. 1819. 10 p. (In U. S. 16th Cong. 1st sess. Ex. Doc. no. 17, in v. 2) Serial no. 32.
Rept. rendered to Sec. War Calhoun, Dec. 28, 1819.

M'MURTRIE, H[enry] Sketches of Louisville and its environs; including among a great variety of miscellaneous matter, a Florula Louisvillensis: or, A catalogue of nearly 400 genera and 600 species of plants that grow in the vicinity of the town, exhibiting their generic, specific and vulgar English names . . . Louisville, printed by S. Penn, Jr., 1819. viii, 255 p. map.

PECK, W. D. Insects which affect the oaks and cherries. (In Mass. Agric. Repos. & Jour. v. 5, p. 307–13. Jan. 1819)

RAFINESQUE, C. S. 1) Prodrome des nouveaux genres des plantes observées en 1817 et 1818 dans l'intérieur des Etats-Unis d'Amérique; 2) Remarques critiques et synonymiques sur les ouvrages de MM. Pursh, Nuttall, Elliott, Torrey, Barton, Muhlenberg . . . sur les Etats-Unis. (In Jour. de Physique et de Chimie. Paris, 1819. v. 89, p. 96–107; p. 256–62)

————. Papers . . . (In Western Rev. & Misc. Mag. v. 1. 1819–20) Lexington, Ky.
1) Botany of Kentucky: on its principal features, p. 92–5.
2) On the salivation of horses, p. 182–84.
3) Descriptions of two new shrubs from Kentucky. p. 228–30.

4) Description of two new species of foxes in the western state. p. 234–36.
5) Natural history of the fishes of the Ohio River and its tributary streams. p. 305–13.
6) Description of the river Ohio. p. 361–77. Jan. 1820.

————. Prodrome de 70 nouveaux genres d'animaux decouverts dans l'intérieur des Etats-Unis d'Amerique durant l'année 1818. (In Jour. de Physique, de Chimie, et de l'histoire naturelle. Paris, 1819. v. 88, p. 417–29)

Also in Isis. Litterarischer Anzigen. Jena, 1820. p. 236–44.

————. Remarques critiques et synonymiques sur les ouvrages de M. Pursh, Nuttall, Elliott, [T]orrey, Eaton, Bigelow, Barton, Muhlenberg, etc., sur les plantes des Etats-Unis. (In Jour. Phys. Chim. Hist. Nat. & des Arts. v. 89, p. 256–62. 1819)

SCHOOLCRAFT, H. R. A view of the lead mines of Missouri; including some observations on the mineralogy, geology, geography, antiquities, soil, climate, population, and productions of Missouri, Arkansaw, and other sections of the western country. N. Y. Wiley, 1819. 299 p. front. 2 pl.

Rev. in Amer. J. Sc. v. 3, no. 1, art. 7, p. 59–72. Feb. 1821.

THOMAS, David. Travels through the western country in the summer of 1816, Including notices of natural history, antiquities, topography, agriculture, commerce and manufactures . . . Auburn, N. Y. Printed by David Rumsey, 1819. 320 p. fold. map.

TUFTS, Joseph. On the insect found in apples and pears. (In Mass. Agric. Repos. & Jour. v. 5, p. 364–67. 1819)

ZOLLICKOFFER, William. A materia medica of the United States, systematically arranged. Baltimore, 1819. 4 + 120 p.

1820 BARTON, W. P. C. Remarks on the reputed sanative and prophylactic virtues of Scutellaria Lateriflora or scull-cap. (In Phila. Jour. Med. & Phys. Sc. v. 1, p. 383–414. 1820)

————. A flora of North America. Illustrated by original coloured figures, drawn from nature. Phila. Carey & son, 1820–23. 3 v. 106 col. pl. 4°.

Prefaces dated respectively, Feb. 8, 1821; July 15, 1822; Dec. 31, 1823.

v. 1, 1820–21, M. Carey & son.
xix, [5] + 138 p. col. pl. 1–36.
v. 2, 1822, H. C. Carey & I. Lea.
(The word "original" omitted from the title.) x + 107 p. col. pl. 37–70.
v. 3, 1823, Carey & Lea.
viii + 100 p. col. pl. 71–106.

Another ed. 1821–23. 3 v.

————. Memorial from the professor of Botany in the University of Pennsylvania, to the trustees of that institution, proying for the removal of the professorship from the faculty of natural science into the medical faculty; and to render it a requisite branch for the attainment of a medical degree. Phila. R. P. M'Culloh, 1820. 12 p.

CLIFFORD, John D. Remarks on the geology of the Valley of the Mississippi. Lexington, Ky., Je–July, 1820. (In Western Rev. & Misc. Mag. v. 2, p. [257]–65 + 321–29.)

————, & RAFINESQUE, C. S. Prodrome d'une monographie des Turbinolites fossiles de Kentucky. (In Annales des Sciences, & Phys. v. 5, p. 231–35. 1820)

DE WITT, Benjamin. Catalogue of minerals contained in the cabinet of the late . . . consisting of more than 11,000 specimens collected in Europe and America. Albany, N. Y., 1820.

[EATON, Amos, and BECK, T. R.] A geological survey of the county of Albany, taken under the direction of the Agricultural Society of the County. Albany, N. Y. 1820. 55 p. 2 fold. tab. diagr.

FARNHAM, J. H. Extract of a letter . . . describing the Mammoth Cave in Kentucky. Worcester, Mass., 1820. (In Amer. Antiq. Soc. Archael. Amer. Trans. & Coll. v. 1, p. 355–61)

HARMON, D. W. A journal of voyages and travels in the interior of North America, between the 47th and 58th degrees of latitude . . . illustrated by a map of the country. Andover, Mass. Flagg & Gould, 1820. xxiii, 25–432 p. Port, Map.

See also COUES (1), pt. 1, p. 605

HARRIS, T. M. The natural history of the Bible; or, A description of all the quadrupeds, birds, fishes, reptiles, and insects, trees, plants, flowers, gums and precious stones mentioned in the Sacred Scriptures; collected from the best authorities . . . Bost. Wells & Lilly, 1820. 476 p.

Rev. in North Amer. Rev. v. 19, p. 86–92. 1820.

HAYDEN, H. H. Geological essays; or, An inquiry into some of the geological phenomena to be found in various parts of America and elsewhere. Baltimore. Printed by J. Robinson, for the author, 1820. 8 + 412 p.

Rev. in Amer. J. Sc. v. 3, p. 47–57. Feb. 1821, by Silliman; & North Amer. Rev. v. 12, p. 134–49. 1821, by Dr. Watkins. See also Merrill, First 100 yrs. Amer. Geol. 1924. p. 81–5, port.

LE CONTE, J. E. Monographie des especes du genre Paspilium existantes dans les Etats-Unis d'Amerique. (In Jour. de Physique. v. 91, p. 283–86. Oct. 1820)

PRINCE, William. A treatise on fruit and ornamental trees and plants cultivated at the Linnaean Botanic Garden, Flushing, Long Island, near New York. N. Y. T. & J. Swords, 1820. 152 p.

Numerous ed. pub. See also SABIN, v. 15, p. 499–500

RAFINESQUE, C. S. Annals of nature; or, Annual synopsis of new genera and species of animals, plants, etc., discovered in North America; first annual number. [Lexington, Ky., T. Smith, 1820.] 16 p.

————. Ichthyologia Ohiensis; or, Natural history of the fishes inhabiting the river Ohio and its tributary streams, preceded by a physical description of the Ohio and its branches. Lexington, Ky., W. G. Hunt, 1820. 90 p.

Repr. from the Western Rev. & Misc. Mag. v. 1, p. 305–13, 361–77, 1819; v. 2, p. 49–57, 169–77, 235–42, 299–307, 355–63, 1820; v. 3, p. 165–73, 244–52. 1820. See also U. S. Nat. Mus. Bull. no. 9 (Smith. Inst. Misc. Coll. v. 13. 1877. 53 p.), are. by D. S. Jordan. A verbatim reprint, etc., ed. by R. E. Call, Cleveland, Burrows, 1899. 175 p. port. illus. facsim. See also D. S. Jordan I. O. (In Buffalo Soc. Nat. Sc. Bull. v. 3, p. 91–7. 1876.

————. Monographie des coquilles bivalves et fluviatiles de la riviere Ohio (contenant douze genres et soixante-huit especes). (In Annales generales des sciences physiques. Bruxelles, 1820. v. 5, p. 287–322)

Translation by C. A. Poulson into English. Phila., J. Dobson, 1832. 72 p. Repr. in CHENU, (1845) q.v.

————. 1) Prodrome d'une Monographie des Rosiers de l'Amerique Septentrionale, contenant la description de quinze especes nouvelles et vingt varieties; 2) Sur le genre Houstonia et description des plusieurs especes nouvelles; 3) Prodrome d'une Monographie de Turbinolies fossiles du Kentucky. (In Annales Generales des Sciences Physiques. Bruxelles, 1820. v. 5, p. 210–20; p. 224–27; p. 231–35).

———— Remarks on the geology of the valley of the Mississippi. (In Western Rev. & Misc. Mag. v. 2, p. 321–22, 326. July, 1820)

———— Remarques sur les rapports naturels des genres Viscum, Samolus, et Viburnum; 2) Tableau analytique des ordres naturelles, familles naturelles et genres de la classe endogynie sous-classe corisantherie; 3) Sur les animaux philostomes et Porostomes. (In Annales Generales des Sciences Physique. Bruxelles, 1820. v. 6, p. 76–89; p. 348–51; p. 359–64)

———— 1) Sur les quelques animaux hybrides; 2) Nomenclature synandrique; ou, Descriptions des differents modes d'union parmi les etamines. (In Annales Generales des Sciences Physiques. Bruxelles, 1820. v. 7, p. 85–8; p. 101–7)

SILLIMAN, Benjamin. Remarks made on a short tour, between Hartford and Quebec in the autumn of 1819 . . . New Haven, G. Converse, 1820. 2, 3–407 p. front. 8 pl.

2d ed. New Haven, 1824. 443 p. 9 pl.

English ed. Lond. 1822, entitled "A tour to Quebec, in the autumn of 1819." viii, 128 p. 2 pl.

SUMNER, George. A compendium of physiological and systematic botany . . . Hartford, O. D. Cooke, 1820. xii, 300 p. 8 pl.

1821 BARTON, B. S. Some account of the Siren Lacertina, and other species of the same genus of amphibious animals, in a letter . . . to Mr. John Gottlob Schneider of Saxony. Phila. Jasper Harding, printer, 1821. 32 p. pl.

See previous ed. pub. in 1808.

BARTON, W. P. C. An account of the Ziziphus Vulgaris, and Z. lotus, or the large and little Jujubes. (In Phila. Jour. Med. & Phys. Sc. v. 2, p. 313–20. 1821)

CASEY, J. P. A treatise on the culture and growth of different sorts of flower roots and of greenhouse plants kept in rooms . . . to which is added a table of the Linnaean classes of botany, with their orders and examples. Baltimore, 1821. 99 p.

CHANNING, Walter. A survey of the botany of the United States. (In North Amer. Rev. v. 13, p. 100–34. 1821)

COOPER, Thomas. Syllabus of a course of lectures on the elements of geological mineralogy. 1821. 8 p.

DARBY, William. Memoir on the geography and natural and civil history of Florida attended by a map of that country, connected with the adjacent places . . . Phila. T. H. Palmer, 1821. vii, [5] – 92 p. fold map.

Rev. in North Amer. Rev. v. 13, p. 62–100. 1821.

DEARBORN, H. A. S. Locust trees. (In Mass. Agric. Repos. & Jour. v. 6, p. 270–75. 1821)

DWIGHT, Timothy. Travels in New England and New York. New Haven, 1821–22. 4 v. 2 fold. maps. [524, 527, 534, 527 p.]

Lond. ed. 1823. 4 v. map.

ELLIOTT, Stephen. A sketch of the botany of South Carolina and Georgia in two volumes. Charleston, S. C., J. R. Schenck, [1821] – 24 (Sept. 26, 1816–1824). 2 v. 12 pl.

v. 1, viii + 743 p. 4 pl. [16 fig.], v. 2, p. 1–583, vi, [585]–606, 8 pl. [32 fig.]

For the dates of the issue of the various parts, see BARNHART, J. H. Dates of Elliott's Sketch. Torrey Bot. Club. v. 28, p. 680–88.

Dec. 1901, and Asa Gray. Amer. J. Sc. Ser. 3, v. 13, p. 81–2. 1877.

Part of v. 1, rev. in New England Jour. Med. & Surg. v. 6 (n.s. v. 1), p. 265–67. July, 1817.

First 5 nos. rev. by Rafinesque in Amer. Mthly Mag. & Critical Rev. v. 3, p. 96–101. June, 1818.

"Grasses" in Elliott's "Sketch," by L. Lamson-Scribner. (In U. S. Dept. Agric. Dir. Agrostology. Circ. no. 29. Wash. 1901. 12 p. 4 figs.)

According to Dr. Barnhart, v. 1, no. 1, p. 1–96, pl. 1–2, was originally pub. Sept. 26, 1816, recalled & reissued with no. 2, p. 97–200, Dec. 1817. No. 3, p. 201–96, Mar. 1817; no. 4, p. 297–400, Oct. 1817; no. 5, p. 401–96, Dec. ? 1817; no. 6, p. 497–606, early in 1821. v. 2, no. 1, p. 1–104, late in 1821; no. 2, 105–208, early in 1822; no. 3, p. 209–312, 1822?; no. 4, p. 313–416, 1823?; no. 5, p. 417–520, 1823? no. 6, p. 521–743, pl. 7–12, 1824.

JAMES, Edwin. Catalogue of plants of Middlebury, Vermont. (In Hall, Frederick. Statistical account of the town of Middlebury, Vt. Bost. 1821. 38 p.)

Also in Mass. Hist. Soc. Coll. ser. 2, v. 9, p. 123–58. 1822.

KEATING, W. H. Considerations upon the art of mining, to which are added, reflections on its actual state in Europe, and the advantages which would result from an introduction of this art into the United States. Phila. M. Carey & Sons, 1821. 87 p.

NUTTALL, Thomas. A journal of the travels into the Arkansas territory during the year 1819. With occasional observations on the manners of the aborigines . . . Phila. T. H. Palmer, 1821. xii, 9–296 p. 5 pl. map.

Rev. in North Amer. Rev. v. 16, p. 59–76. 1823

Repr. in (Early western travels, 1748–1846. . . ed, by R. G. Thwaites. Cleve. 1904–7. v. 13. 366 p. 5 pl. map)

SCHOOLCRAFT, H. R. Journal of a tour into the interior of Missouri and Arkansas, from Potosi, or Mine à Burton in Missouri Territory, in a southwest direction toward the Rocky Mountains, performed in the years 1818 and 1819. Lond. R. Phillips & Co., 1821. 102 p. map. (In Phillips, Sir R. ed. Collection modern . . . voyages ser. 3, v. 4, no. 5)

See also SABIN, v. 19, p. 58

SCHWEINITZ, L. D. de. Specimen Florae Americae Septentrionalis Cryptogamicae, sistens muscos, hepaticos hucusque in Am. Sep. observatos; or, Specimen of a systematic arrangement and description of the cryptogamous plants of North America, comprising a diagnostic description of all the hepatic mosses hitherto observed in N. A. with

ampler descriptions of a number of new species. Raleigh. Printed by J. Gales, 1821. 27 p.

STEEL, John. On the geological structure of the county of Saratoga in the state of New York, together with remarks on the nature and properties of the various soils and modes of culture, intended to illustrate the natural history and domestic resources of the county. (In The Ploughboy & Jour. Agric. Albany, N. Y. 1821. v. 3, p. 354–55, 365–67, 373–74, 377–79, 385–86, 393, 401–2, 409–10)

WEBSTER, J. W. A description of the Island of St. Michael, comprising an account of its geological structure, with remarks on the other Azores or Western Islands. Bost. R. P. & C. Williams, 1821. 244 p. pl. maps.

Abstract in Amer. J. Sc. v. 4, p. 251–66, 1822; & North Amer. Rev. v. 14, p. 34–51. Jan. 1822

1822 [CLINTON, DeWITT]. Letters on the natural history and internal resources of the state of New York, by Hibernicus, i.e., DeWitt Clinton. N. Y. E. Bliss and E. White, 1822. 224 p. 12 mo.

[EATON, Amos]. A geological and agricultural survey of Rennselaer County, in the state of New York, to which is annexed a geological profile, extending from Onondaga Salt Springs, across said county, to Williams College in Massachusetts, taken under the direction of the Hon. Stephen Van Rensselaer. Albany, Horsford, 1822. 70 p. pl.

————. A zoological syllabus and notebook, for the Troy Female Academy. Troy, N. Y. 1822.

LOWELL, John. Some slight notices of the larch tree (Pinus larix), in various parts of our country under the several names of Juniper, Hackmatack, and larch. (In Mass. Agric. Repos. & Jour. v. 7, p. 155–60. 1822)

MUHLENBERG, HENRY. [G. H. E.] Reduction of all the genera of plants contained in the catalogue plantarum Americae Septentrionalis to the natural families of DeJussieu's system. (In Smith, J. E. A grammar of botany. Lond. 1822. p. 213–24)

SCHWEINITZ, L. D. von. Synopsis fungorum Carolinae superioris secundum observationes . . . ed. by D. W. SCHWAEGRICHEN . . . (In Natur. Gesell. Leipzig. Schriften. v. 1, p. 21–131, illus. 1822)

Also Leipsic, 1818. 105 p. 2 pl. 4°.

Annotated transl. by Arthur, J. C., & Bisby, G. R. in Amer. Phil. Soc. Proc. v. 57, p. 173–292. 1918.

THATCHER, James. The American orchardist; or, A practical treatise on the culture and management of apple and other fruit

trees, with observations on the diseases to which they are liable and their remedies . . . Bost. 1822. 6 + 226 p.
Subsequent ed.

WARREN, J. C. A comparative view of the sensorial and nervous systems in man and animals. Bost. J. W. Ingraham, 1822. 159 p.
Appeared in Mass. Med. Soc. Trans.

1823 ADLUM, John. A memoir on the cultivation of the vine in America, and the best mode of making wine. Wash. Davis & Force, 1823. 142 p.
2d ed., Wash. William Green, 1828. 180 p.

BARTON, B. S. Facts, observations, and conjectures relative to the generation of the Opossum of North America. Lond. 1823. (In Annals Phil. ed. by Thomson. v. 6, p. 349–54)
Also in Froriep's Notizen. Erfurt, 1824. v. 6, p. 129–44.

BECK, L. C. A gazeteer of the states of Illinois and Missouri; containing a general view of each state—a general view of their counties—a particular description of their towns, villages, rivers . . . Albany, C. R. & G. Webster, 1823. 352 p. 5 pl. map.
Contains considerable botanical & geological matter.
Rev. in Amer. J. Sc. v. 6, p. 367–69. 1823.

HARRIS, T. W. The natural history of the salt-marsh caterpillar. (In Mass. Agric. Repository & Jour. v. 7, p. 322–31, 1 pl. 9 fig. 1823)

HAYWOOD, John. The natural and aboriginal history of Tennessee, up to the first settlements therein by the white people in the year 1768. Nashville, printed by George Wilson, 1823. viii, 390, liv, p.

LEA, ISAAC. Sketch of the history of mineralogy. (In Phila. Jour. Med. & Phys. Sc. v. 7, p. 270–89. Nov. 1823)
Rd before Phila. Acad. Nat. Sc. (1812), q.v.

NEW ENGLAND FARMER and Horticultural Journal, containing essays, original and selected, relating to agriculture and domestic economy; ed. by T. G. Fessenden. Bost. 1823–46. 24 v. illus. 4°.

STEELE, J. H. A report of the geological structure of the county of Saratoga. (In N. Y. (state). Board Agric. Memoirs. v. 2, p. 44–84, 155–61. 1823)

WORSHAM, H. C. An essay on the Solanum tuberosum (Potato). (In New England Farmer. v. 2, p. 1–2. Aug. 2, 1823)

1824 *BELTRAMI, G. C. La découverte des sources du Mississippi et de la rivière Sanglante . . . New Orleans, B. Levy, 1824. v. [1], 327, [1] p.

He was temporarily attached to the Long Exped. to the St. Peter's (1823), q.v. London ed., 1828. 2 v.: entitled: "A pilgrimage in Europe and America. . . " Another ed. Lond. Hunt & Clarke, 1828. 2 v. illus. pl. map. See SABIN, v. 2, p. 51–2.

DARBY, William. Geographical, historical and statistical repository. v. 1. A geographical view of Pennsylvania. Phila. 1824.

EATON, Amos. A geological and agricultural survey of the district adjoining the Erie Canal in the state of New York; taken under the direction of the Hon. Stephen Van Rensselaer. Albany. Printed by Packard & Van Benthuysen, 1824. [1], 163 p. diagr. 2 pl.

Rev. in Amer. J. Sc. v. 8, p. 195–98, 358–62. 1824; & in v. 17, p. 383–85. Jan. 1828.

GODMAN, J. D. Anatomical investigations, comprising descriptions of various fasciae of the human body . . . to which is added an account of some irregularities of structure and morbid anatomy . . . Phila. Carey & Lea, 1824. xiii, [5]°134 p. 1 l. front. pl.

HALL, Frederick. Catalogue of minerals found in the state of Vermont, and in the adjacent states, together with their localities, including a number of the most interesting minerals which have been discovered in other parts of the United States, arranged alphabetically. Hartford, Conn., P. B. Goodsell, 1824. 44 p.

[HARLAN, RICHARD] An inquiry into the functions of the brain in man and in the lower order of animals. Delivered as a lecture before the Academy of Natural Sciences of Philadelphia, by a physician. . . Phila. 1824. 24 p.

See also Phila. Acad. Nat. Sc. (1812), in v. 2

MONROE, John. The American botanist, and family physician; in which the medical virtues of the mineral, animal and vegetable productions of North America are exhibited; comprehending a treatise upon the principle disorders of the climate . . . Comp. by Silas Gaskill. S Wheelock, Vt., 1824. 2 v. in 1 (203 p.)

RAFINESQUE, C. S. 1) On a new tree of Kentucky, forming a new genus Clandrastus fragrans; 2) On the genus Collinsia, and two new species of it; 3) On a new medical plant, Prenanthes opiorina and a new kind of opium, opiorine; 4) On a new genus Lophactis. (In Cincinnati Literary Gazette. v. 1, p. 59–60, 84; v. 2 , p. 10–1, 28. 1824)

SAY, Thomas. American entomology, or, Descriptions of the insects of North America. Illustrated by colored figures from original drawings executed from nature. [Phila.] Phila. Museum. S. A. Mitchell. For sale by Anthony Finley; William Brown, printer.

Dedicated to William Maclure. Pages are unnumbered.
v. 1, 1824, viii, [112] p. pl. 1–18 (col.)

v. 2, 1825, [137] p. pl. 19–36 (col.)
v. 3, 1828, [135] p. pl. 37–54 (col.)
Repr. in 1859 (q.v.) French ed., Paris, 1837.
3 v. ed. by M. A. Gory.

SHRIVER, James. An account of the surveys and examinations with remarks and documents relative to the projected Chesapeake & Ohio & Ohio & Lake Erie Canals. Baltimore, Fielding Lucas, Jr., 1824. 116 p. 2 maps.

*SMELLIE, William, and WARE, John. The philosophy of natural history, by William Smellie . . . with an introduction and various additions and alterations intended to adapt it to the present state of knowledge. Bost. Cummings & Hilliard, 1824. 336 p.
Rev. in North Amer. Rev. v. 19, p. 395–410. 1824.

THOMPSON, Zadock. A gazateer of the state of Vermont; containing a brief general view of the state, a historical and topographical description of all the counties, towns, rivers, etc. Montpelier, Vt., E. P. Walton & author, 1824. vi, 1 l., [9]–310, [2] p.. pl. front map.

TORREY, John. A flora of the northern and middle sections of the United States; or, A systematic arrangement and description of all the plants hitherto discovered in the United States north of Virginia. N. Y. T. & J. Swords, 1824. 12+518 p.+[1] p. (v. 1).
v. 2, never published.

WEBSTER, M. H. A catalogue of the minerals which have been discovered in the state of New York, arranged under the heads of the respective counties and towns in which they are found. Albany, 1824.

1825 BARTON, W. P. C. Circular letter addressed to the Trustees of the University of Pennsylvania, by the Professor of Botany, on the introduction of that branch into the curriculum of study for a medical degree. Phila. 1825. 28 p.

BONAPARTE, Charles Lucian. American ornithology; or, The natural history of birds inhabitating the United States, not given by Wilson, with figures drawn and engraved and coloured from nature. Phila. Carey, Lea & Carey, 1825–33. 4 v. 27 col. pl. 4°. Copyrighted by Samuel Augustus Mitchell and engraved by Alexander Lawson.
v. 1, 1825, Carey, Lea & Carey, vi, [1] 105 p. col. pl. 1–9, (25 fig.) All but pl. 4 (2 fig.) drawn from nature by T. R. PEALE. Plate 4 by J. J. AUDUBON & A. RIDER.
v. 2, 1828, Same pub, vii [1], 95 p. pl. 10–15, [14 fig.] drawn by A. RIDER.

v. 3, 1828, [1], 60 p. pl. 16–21, [10 fig.] drawn by A. RIDER.
v. 4, 1833, Carey & Lea, [1], 142 p. pl. 22–27, [16 fig.] drawn by PEALE & RIDER.
Another ed. 1859–60.
English ed. 1832. v. 1–3.
See also COUES (1), pt. 1, p. 609–10, & SABIN, v. 2, p. 271–72.

HARLAN, Richard. Fauna Americana: being a description of the mammiferous animals inhabiting North America. Phila. Anthony Finley, 1825. x, 11–318 p. + [2 p.]

MILLER, Samuel. A discourse delivered in the Chapel of Nassau-Hall, before the Literary and Philosophical Society of New-Jersey at its first annual meeting September 27, 1825. Princeton, N. J. 1825. 40 p.

[ORD, George.] Supplement to the American Ornithology of Alexander Wilson; containing a sketch of the author's life, with a selection from his letters, some remarks upon his writings, and a history of those birds, which were intended to compose part of his ninth volume . . . illustrated with plates, engraved from Wilson's original drawings. Phila. J. Laval & S. F. Bradford, 1825. 298 + 4 p. 4 pl.
See WILSON under 1808.
Rev. in North Amer. Rev. v. 24, p. 110–29. 1827 .

RAFINESQUE, C. S. Neogenyton; or, Indication of sixty-six new genera of plants of North America. [Lexington, Ky.,] 1825. 4 p.
Repr. by Amer. Midl. Nat. Notre Dame, Ind. 1914. 4 p.

ROBINSON, Samuel. A catalogue of American minerals with their localities; including all which are known to exist in the United States and British provinces, and having the towns, counties, and districts in each state and province, arranged alphabetically; with an appendix containing additional localities, and a new tabular view. Bost. Cummings & Hilliard & Co., 1825. vi, [2], 316 p.
Rev. in Amer. J. Sc. v. 9, p. 396–97. June, 1825; also rev. in North Amer. Rev. v. 21, p. 233–34. July, 1825. Errors in Dr. Robinson's Catalogue corrected by Frederick Hall in Amer. J. Sc. v. 15, p. 197–99. Jan. 1829.

SAY, Thomas. A glossary to Say's Entomology; or, An explanation of terms used in entomology. Phila. 1825. 37 p.

SCHOOLCRAFT, H. R. Travels in the central portions of the Mississippi valley; comprising observations on its mineral geography, internal resources, and aboriginal population . . . performed under the sanction of the government . . . in 1821. N. Y. Collins & Hannay, 1825. iv, 459 p. 3 pl. 2 maps. front.
Abstract in Quaife, M. M. Pictures of Illinois 100 years ago. Chicago, Donnelly, 1918. 23 + 186 p. (Lakeside classics. v. 16)

VAN RENSSELAER, Jer[emiah]. Lectures on geology; being outlines of the science delivered in the New York Athanaeum in the year 1825. N. Y. E. Bliss & E. White, 1825. xiv, [13]–358 p.

Contains 6 lectures. Rev. in North Amer. Rev. v. 21, p. 240–42. July, 1825.

1826 ATKINSON, Henry. . . Letter . . . respecting the movements of the expedition which lately ascended the Missouri River. . . Wash. 1826. 16 p. (In U. S. 19th Cong 1st sess. H. Ex. Doc. no. 117, v, 6) Serial no. 136.

Report made Nov. 23, 1825. Expedition carried on between April & August, 1825.

AUDUBON, J. J. Accounts of the habits of the Turkey-buzzard (Vultura aura). (In Edinburgh New Phil. Jour. v. 3, p. 172–84. Oct.–Dec. 1826)

Repr. in Froriep's Notizen. Erfurt, 1827. v. 17, p. 97–106.

BONAPARTE, C. L. J. L. Observations on the nomenclature of Wilson's "Ornithology." Phila. Anthony Finley, 1826. [25 p.]

Repr. with enlargement from Phila. Acad. Nat. Sc. Proc. v. 3–5, 1824–25.

See also WILSON under 1808. See also v. 2, p. 151.

*COLLOT, G. H. V. A journey in North America, containing a survey of the countries watered by the Mississippi, Ohio, Missouri. . . Paris, Bertrand, 1826. 2v. & atlas of 36 pl. (maps). French ed., v. 1, iv, viii, 416 p.; v. 2, 427+[36] p. English ed., v. 1, 310 p.: v. 2, 372 p. (Pub. in both French & English).

English ed., edited by J. Christian Bay. Firenze, Italy, Lange, 1924. 2 v. [v. 1, 27+4+5+310 p.; v. 2, 297 p. maps]. (Repr. of Rare Americana. no. 4)

See also SABIN, v. 4, p. 251–52

DARLINGTON, William. Florula Cestrica; an essay towards a catalogue of the phaenogamous plants, native and naturalized, growing in the vicinity of the borough of West Chester, in Chester County, Pennsylvania, with brief notices of their properties and uses, in medicine, rural economy and the arts; to which is subjoined an appendix of the useful cultivated plants of the same district. West Chester, Pa. Printed for the author by S. Siegfried, 1826. 5+152 p. 3 col. pl.

2d ed. West Chester, 1837. xviii, 640 p. col. map. Entitled: Flora Cestrica: an attempt to enumerate and describe the flowering and filicoid plants of Chester County, Pa. . .

Rev. in Amer. J. Sc. v. 33, p. 183–84. April, 1837.

1st ed., 1826 rev. in Amer. J. Sc. v. 12, no. 1, p. 177–79. March, 1827.

2d ed. rev. by C. W. SHORT, in Transylvania J. Med. & Assoc. Sc. v. 10 no. 3, p. 499–506. Sept. 1837.

3d ed., Phila. 1853. 100 + 498 p. map. Entitled Flora Cestrica: an herborizing companion for the young botanists of Chester County. . . . Pa. Phila. Lindsay & Blakiston, 1853.

Mosses & Hepaticae by T. P. JAMES; and the Thallophytes by E. MICHENER.

Rev. in Amer. J. Sc. v. 66, p. 129–30. July, 1853.

EATON, Amos. Zoological text-book, comprising Cuvier's four grand divisions of animals; also, Shaw's improved Linnaean genera, arranged according to the classes and orders of Cuvier and Latreille; prepared for the Rensselaer School and the popular class-room. Albany, Websters & Skinners, 1826. vi. [1] – 288 p.

EMMONS. Ebenezer. Manual of mineralogy and geology; designed for the use of schools and for persons attending lectures on these subjects, as also a convenient pocket-companion for travellers, in the United States of America. Albany, Websters & Skinners, 1826. 23 + 229 p.

Adopted as a text-book in the Rensselaer School.

2d ed. Albany, 1832. 12 + 299 p. diagr.

Rev. in Amer. J. Sc. v. 24, p.

*ESCHSCHOLTZ, J. F. Descriptiones plantarum novae Californae adjectis florum exoticorum analysibus. (In Acad. Sc. St. Petersburg. Memoirs. v. 10, p. 281–92. 1826)

GODMAN, J. D. American natural history . . . pt. 1, Mastology. Phila. H. C. Carey & I. Lea, 1826. 2 v. pl. illus. v. 1, xvi, 1, [17]–362 p.; v. 2, 331 p.

Also pub. 1826–28 in 3 v. Another ed., 1836, to which is added his last work, "The rambles of a naturalist." See under 1833. Third ed. Phila. 1842, and 1846. 2 v. in 1. Another ed. 1860, v. 1, 26 + 345 p.; v. 2, 337 p.

———. A letter to Dr. Thomas P. Jones, editor of the Franklin Journal. Phila. 1826. 28 p.

See HARLAN below.

HARLAN, Richard. Refutation of certain misrepresentations issued against the author of the "Fauna Americana" in the Philadelphia Franklin Journal, no. 1, 1826, and in the North American Review, no. 50. Phila. Printed by W. Stavely, 1826. 42 p.

See GODMAN above.

LOCKE, John. Medical botany: a description of the western medical plants, including some notice of their medical virtues. (In Ohio Med. Repos. Cincinnati, 1826. v. 1, p. 15, 19, 27, 31, 35, 39, 43, 47, 51)

LONG, S. H. On the Rocky Mountain sheep. (In Phila. Soc. Promoting Agric. Mem. v. 5, p. 193–95. 1826). Rd. Feb. 16, 1825.

MILLS, Robert. Statistics of South Carolina, including a view of its natural, civil, and military history, general and particular. Charleston, S. C., Hurlburt & Lloyd, 1826. vii, [17] – 782 + [48] p. map.

Geology and mineralogy, p. 17–60;
Botany and zoology, p. 61–129.

MITCHILL, S. L. Address pronounced before the New York Horticultural Society in the literary and philosophical hall of the Institution, on the annual celebration, August 29, 1826. N. Y. E. Conrad, 1826. 32 p.

REEVE, Mark, and HOLCOMBE, George. On the New Jersey marls. (In Phila. Soc. Promoting Agric. Mem. v. 5, p. 1–7, 8–15) 1826

[*SCOULER, John]. Dr. John Scouler's Journal of a voyage to Northwest America during 1826. (In Oregon Hist. Soc. Quart. v. 6, no. 2, p. 54–75. Sept. 1904)

Repr. from MS discovered by Charles E. Ladd of Portland, Oregon.

TORREY, John. A compendium of the flora of the northern and middle states, containing generic and specific descriptions of all the plants, exclusive of the cryptogamia, hitherto found in the United States, north of the Potomac. N. Y. S. B. Collins, 1826. 6, 1 l., p. [13]–403.

Dedicated to William Cooper. Preface dated West Point, Sept. 1, 1826.

TROOST, Gerard. Geological survey of the environs of Philadelphia, preformed by order of the Philadelphia Society for Promoting Agriculture . . . Phila. H. S. Tanner, 1826. 40 p.

See also Amer. Geol. v. 26, p. 391–92. Dec. 1900 & v. 27, p. 41–2. Jan. 1901. See also MERRILL (1), p. 283, & his First 100 yrs. Amer. Geol. 1924. p. 111–12.

1827 AUDUBON, J. J. Observations on the natural history of the alligator . . . (In Edinburgh New Phil. Jour. v. 2, p. 270–80. Mar. 1827)

————. Account of the carrion crow or Vultur atratus. (In Edinburgh Jour. Sc. v. 6, p. 156–61. Jan. 1827)

————. Notes of the habits of the wild pigeon of America, Columbia migratoria. (In Edinburgh Jour. Sc. v. 6, p. 257–65. Apr. 1827)

Rd. before Royal Soc. Edinburgh, Feb. 19, 1827.

————. Notes on the rattlesnake (Crotalus horridus) . . . (In Edinburgh New Phil. Jour. v. 3, p. 21–30. 1827)

Also in Franklin Inst. Phila. Jour. n. s. v. 2, p. 32–7. 1828.
Rd. before Wernerian Nat. Hist. Soc. Feb. 24, 1827.

AUDUBON, John James. The Birds of America; from original drawings . . . London. Published by the author, 1827–38. 4 v.

435 col. pl. (1065 life-sized figures). Double elephant folio. (Plates 99.5 x 96.5 cm.)

Issued in 87 parts. Engraved title-page.

v. 1, pts. 1–22, pl. 1–110. 1827–30.
2, pts. 23–44, 111–220. 1831–34.
3, pts. 45–66, 221–330. 1834–35.
4, pts. 67–87, 331–435. 1835–38.

According to Sabin, v. 1, p. 315–16, q.v., "the plates were published without any text to avoid the necessity of furnishing copies gratis to the public libraries in England, agreeably to the law of copyright." The TEXT was pub. in 1831 (q.v.) under title of "Ornithological biography."

The Plates were issued as follows: pl. 1–25, 1827; 26–50, 1828; 51–75, 1829; 76–100, 1830; 101–25, 1831; 126–55 (?), 1832; 156–85, 1833; 186–235, 1834; 236–85, 1835; 286–350, 1836; 351–400, 1837; 401–35, 1838.

Plate 64 drawn from nature by Lucy AUDUBON.

Plates 1–2, 6–7 engraved by W. H. LIZARS, retouched by Robert HAVELL, Jr.; pl. 8–9, engraved by Lizars; pl. 3–5, 101–105, 108, 110, engr., printed and colored by Robert HAVELL, Jr.; pl. 10–100, 106–107, 112–435, engr., printed and colored by Robert HAVELL, Sr.

Another edition. N. Y. J. J. Audubon; J. B. Chevalier, 1840–44. 7 v. 435 col. pl. Royal 4°. (Issued in 100 parts). Reissued in 1856.

Another ed., reissued by J. W. AUDUBON. N. Y. Roe, Lockwood & son, 1861. 4 v. 140 col. pl. Entitled: "The Birds of America. From drawings made in the United States and their Territories."

Another ed. N. Y. Roe, Lockwood & son, 1861. 7 v. 500 col. pl. (v. 1, viii, 246, p.; v. 2, viii, 200 p.; v. 3, viii, 234 p.; v. 4, viii, 322 p.; v. 5, viii, 346 p.; v. 6, viii, 456 p.; v. 7, viii, 372 p.) Another ed. 1865. 8 v.

For a complete and comprehensive treatment of the works of A. see Stone, Witmer. Bibliography of the ornithological works of J. J. A. (In Auk. v. 23, p. 298–312. 1906).

See also Herrick, F. H. Audubon. 1917. v. 2, p. 401–2.

See also COUES (1), 1878, p. 612. (See Annot. Bib. in v. 1 of this work).

This work of A.'s was also reissued in an octavo form, plates and text separately, and plates and text combined. See 1840 below.

See also Swainson's Review in Loudon's Mag. Nat. Hist. v. 1, p. 43–52, illus. 1829. & Edinb. New Philos. Jour. v. 10, p. 317–31. 1831.

BARTON, W. P. C. Outlines of lectures on Materia medica and botany delivered in the Jefferson Medical College, Philadelphia. Phila. J. G. Auner, 1827–28. 2 v. 12°.

v. 1, 1828, 246 p.; v. 2, 1827, iv, [9]–291 + [1] p.

*Bonaparte, C. L. J. L. Specchio comparativo delle Ornitologie di Roma e di Filadelfia. Pisa, 1827. 80 p.
From Nuovo Giornale de Letterati, no. 33.

————. Supplement to the genera of North American birds, and to the Synopsis of the species found within the territory of the United States. Lond. 1827. (In Zool. Jour. v. 3, p. 49–53).

COMSTOCK, J. L. Elements of mineralogy . . . Bost. S. G. Goodrich, 1827. 76 + 338 p. illus.
2d ed. Hartford, 1832. 343 p. 3d ed., N. Y. 1841. 369 p. 1st ed. rev. in North Amer. Rev. v. 24, p. 487–88. 1824.
See his Introduction under 1832.

GOOD, J. M. The book of nature . . . N. Y. E. Duyckinck, 1827. 530 p.

Green, R. Remarks on the Scarabaeus orseus, or rose bug . . . (In New England Farmer. v. 6, p. 40–1, 49–50. 1827).
See also v. 4, p. 345–47, for natural history of horse bee.

Harris, T. W. Minutes towards a history of some American species of Melolonthae particularly injurious to vegetation. (In Mass. Agric. Repository & Jour. v. 10, p. 1–12. July, 1827).

Le Sueur, C. A. American ichthyology, or natural history of the fishes of North America; with colored figures executed from nature. New Harmony, Indiana, 1827. 6 p. 5 pl.

*Lindley, John. Notice of a new genus of plants (Douglasia) discovered in the Rocky Mountains of North America by David Douglas. (In Quart. Jour. Sc. v. 2, p. 383–85. 1827)

Mills, Stephen. Catalogue of American trees, plants and seeds for sale, by Stephen Mills & co., Flushing, near N. Y. N. Y. 1827. [39] p.

NUTTALL, Thomas. An introduction to systematic and physiological botany. Cambridge, Mass., Hilliard & Brown, 1827. xi, 360 p. 12 pl. (inc. front.)
2d ed. 1830. Cambridge, Mass., Hillard & Brown. xi, 363 p. 12 pl. (inc. front.)
Rev. in Amer. J. Sc. v. 13, p. 99–106. Sept. 1827.

WILLIAMS, John Lee. A view of West Florida, embracing its geography, topography, etc. . . . Phila. H. S. Tanner, 1827. 178 p. fold. map. Hist. of plants, p. 39–62.

1828 Audubon, J. J. Notes on the bird of Washington (Falco Washingtonia), or Great American sea eagle . . . (In Loudon's Mag. Nat. Hist. v. 1, p. 115–20. 1828).

————. Account of the method of drawing birds employed by . . . (In Edinburgh Jour. Sc. v. 8, p. 48–54. 1828).

BIGLAND, John. A natural history of birds, fishes, reptiles and insects . . . Phila. J. Grigg, 1828. [2], x, l, [13]–179 p. 11 col. pl.
Other editions.

EATON, Amos. Geological nomenclature for North America, founded upon geological surveys taken under the direction of Stephen Van Rensselaer. Albany, N. Y. Packard & Van Benthuysen, 1828. 31 p. 3 maps.

DARBY, William. View of the United States, historical, geographical, and statistical; exhibiting in a convenient form the natural and artificial features of the several states, and embracing . . . illustrated with maps . . . Phila. H. S. Tanner, 1828. 622 p. 14 maps.

FESSENDEN, T. G. The new American gardener, containing practical directions on the culture of fruits and vegetables, including landscape and ornamental gardening, grape-vines . . . Bost. 1828. 306 p.

FLINT, Timothy. A condensed geography and history of the western states, or the Mississippi Valley. Cincinnati, E. H. Flint, 1828. 2 v.

2d ed., 1832. Rev. in Amer. J. Sc. v. 24, p. 179–81. Apr. 1833.

PARMENTIER, André. . . . Periodical catalogue of fruit and ornamental trees and shrubs, green-house plants . . . cultivated and for sale at the Horticultural and Botanic Garden of Brooklyn, corner of the Jamaica and Flatbush Roads, about 2 miles from the City of N. Y. 4 p. Broadside contains plan of garden. Pub. as a supplement to the "New England Farmer." (Repr. in Bklyn. Bot. Gard. Record. v. 11, p. 115–18; v. 12, p. 119–25. 1922–23)

[MITCHELL, Elisha]. [Diary of a geological tour by Dr. E[lisha] Mitchell in 1827 and 1828, with introduction and notes by Dr. Kemp P. Battle. Chapel Hill, N. C., 1905. 73 p. (In Univ. N. C. James Sprunt Hist. Monograph. no. 6)].

MITCHILL, S. L. A lecture on some parts of the natural history of New Jersey, delivered before the Newark Mechanic Association, June 3, 1828. N. Y., printed by Elliott & Farmer, 1828. 34 p.

MITCHILL, S. L. and MCNEVEN, W. J. A chymical examination of the mineral water of Schooley's Mountain springs, together with a physical geography of the first range of mountains extending across New Jersey, from the Hudson to the Delaware . . . N. Y. Sickles, 1828. 24 p.

Repr. Morristown, N. J. S. P. Hull, Printer, 1841. 24 p.

RAFINESQUE, C. S. Medical flora; or, Manual of the medical botany of the United States of North America. Containing a selection of above 100 figures and descriptions of medical plants, with their names, qualities, properties, history, &c.; and notes or remarks on nearly 500 equivalent substitutes in two volumes. Phila.

Atkinson & Alexander, 1828–30. 2 v. 100 col. pl.
v. 1 A–H 268 p. 52 pl.; v. 2 I–Z 276 p. 48 pl.
v. 1, 1828, A–H, [1 l.]; xii, 268 p. 52 col. pl.
v. 2, 1830, 1–X, 6, p. [7]–276, col. pl. 53–100.
For another ed. of v. 1, see 1841; RAFINESQUE.

1829 *BAKEWELL, Robert, and SILLIMAN, Benjamin. An introduction to geology; comprising the elements of the science in its present advanced state and all the recent discoveries, with an outline of the geology of England and Wales; first American edition, edited by Benjamin Silliman. New Haven, H. Howe, 1829. 20+ 400 p. illus. pl.
For Appx. by SILLIMAN, see below.

*BAYFIELD, H. W. Outlines of the geology of Lake Superior . . . (In Lit. & Hist. Soc. Quebec. Trans. v. 1, p. 1–43, 6 pl. 1829).

*BOISDUVAL, J. B. A. D. de, and LE CONTE, John. Histoire generale et iconographie des Lepidopteres et des Chenilles de l'Amerique Septentrionale. Paris, 1829–33. 228 p. 78 col. pl.

BRIDGEMAN, Thomas. The young gardener's assistant. Brooklyn, 1829. 96 p.

[CHILTON, George]. Catalogue of his collection of rare minerals. N. Y. 1829.

COMSTOCK, J. L. Natural history of quadrupeds; with engravings, on a new plan, exhibiting their comparative size, adapted to the capacities of youth; with authentic anecdotes, illustrating the habits and characters of the animals, together with reflections moral and religious . . . Hartford, Conn., Robinson & co., 1829. 201 p. illus.
Another ed. 1848.

COXE, J. R. Some observations on the plant that produces the officinal Jalap, as established by its culture during three successive seasons. (In Amer Jour. Med. Sc. v. 5, p. 300–7. 1829).

DEARBORN, H. A. S. An address delivered before the Massachusetts Horticultural Society, on the celebration of their first anniversary, Sept. 19, 1829. Bost. Press of I. R. Butts, 1829. 28 p.
2d ed. Bost. 1833. 32 p.

DEWEY, Chester. Natural productions of Berkshire County, Mass. Pittsfield, Mass., 1829. (In Field, D. D. A history of the county of Berkshire, Mass. . . . p. 36–86).

*DOUGLAS, D[avid]. Observations on some species of the genera Tetrao and Ortyx, natives of North America, with descriptions of four new species of the former, and two of the latter genus. Lond. 1829. (In Linn. Soc. Trans. v. 16, p. 133–49). See also COUES (1), pt. 1, p. 614.

FEATHERSTONAUGH, G. W. On the series of rocks in the United States. (In Lond. Geol. Soc. Proc. v. 1, p. 91–3. 1834). Rd to Soc. in 1829.

GREENLEAF, Moses. A survey of the state of Maine in reference to its geological features, statistics . . . Portland, Me., Shirley Hyde, 1829. viii, [9]–468 + [1] p. map, tab. diagr. atlas of 5 maps.

See also Maine Board Agric. 35th Ann. Rept. for 1892. appx. p. 7–10.

*HOOKER, W. J. Flora Boreali-Americana; or, The botany of the northern parts of British America, compiled principally from the plants collected by Dr. Richardson and Mr. Drummond on the late northern expeditions under the command of Sir John Franklin. To which are added (by permission of the Horticultural Society of London) those of Mr. DOUGLAS, from Northwest America, and of other naturalists . . . London, H. G. Bohn, [1829] – 40. 2 v. front. 238 pl. 30 x 24 cm.

See also Brandagee, Katherine. The dates of the Botany of Flora Boreali-Americana . . . Beechey . . . Torrey & Gray's Flora . . . San Francisco, Calif., Feb. 21, 1894. (In Zoe. v. 4, p. 369–72). Taken from B. D. Jackson's art. in Bull. Herb. Boissier. v. 1, p. 298. 1893.

v. 1, pt. 1, p.	1– 48	1829
pt. 2–3, p.	49–144	1830
pt. 4–6, p.	145–335	
	[329–51 should be 337– 51]	1834
v. 2, pt. 7, p.	1– 48	1834
pt. 8, p.	49– 96	July, 1838
pt. 9, p.	97–144	" "
pt. 10, p.	145– 92	Jan. 1839
pt. 11, p.	193–241	Nov. 15, 1839
pt. 12, p.	241–328	Nov. 15, 1839

v. 1, contains pl. 1–158; v. 2, pl. 159–238.

See also SABIN, v. 8, p. 423, which cites ed. Pub. Lond. Trentell & Wurtz, 1833–40.

4 v. (2 of text & 2 of pl.). 4°.

v. 1, vi, 48, 351 p.; v. 2, vi, 328 p.; v. 3, map, 158 pl.

v. 4, pl. 159–238.

HUGHES, G. W. Report . . . on the Tioga Coal and Iron mines . . Albany, printed by J. B. Van Steenburgh, 1829. 8 p.

LINCOLN, Mrs. A. H. Familiar lectures on botany, including practical and elementary; with generic and specific descriptions of the most common native and foreign plants, and a vocabulary of

botanical terms, for the higher schools and academies. Hartford, 1829. 428 p.

Innumerable ed. pub. during the next 50 years.

MACAULEY, James. The natural, statistical and civil history of the state of New York . . . N. Y. Gould & Banks; Albany, William Gould & co., 1829. 3 v.

Rev. in Amer. J. Sc. v. 18, p. 206–7. 1830.

v. 1, 24 + 539 + [1] p.

v. 2, 11 + 459 p.

v. 3, 16 + 451 + [1] p.

MASSACHUSETTS HORTICULTURAL SOCIETY. Transactions . . . Bost. 1829–date. v. 1–date.

See also BRADLEY BIBLIOGRAPHY, v. 3, p. 5.

*RENNIE, J. Sketches of 24 [North] American song birds. (In Loudon's Mag. Nat. Hist. v. 1, p. 414–21. 1829).

*RICHARDSON, John, *SWAINSON, William, and *KIRBY, William. Fauna Boreali-Americana; or, The zoology of the northern parts of British America, containing descriptions of the objects of natural history, collected on the late northern land expedition under command of Sir John Franklin . . . London, J. Murray; Bentley; Fletcher, 1829–37. 4 v. illus. 110 pl. 4°.

pt. 1, v. 1, Quadrupeds. 1829. xlvi, [2], 300 p. 28 pl. (no. 1–24).

2, v. 2, Birds. 1831. lxvi, 524, pl. 24–73, illus. For analysis, see COUES (1), pt. 1, p. 616–17.

3, v. 3, Fish. 1836, xv, 327, (1) p., pl. 74–97. Pub. Lond. Richard Bentley.

4, v. 4, Insects. 1837. xxxix, 325, [2] p, 8 col. pl. Pub. Norwich, Josiah Fletcher.

pt. 1, by John RICHARDSON; pt. 2, by William SWANSON; pt. 3, by RICHARDSON; pt. 4, by William KIRBY

See also SABIN, v. 17, p. 231–33.

ROBINSON, Samuel. A course of fifteen lectures on medical botany, denominated Thomson's New Theory of medical practice. Columbus, Ohio, H. Howard, 1829. v, [7]–199 + [2] p.

2d ed. Columbus, 1830. 162 p. Other ed., Bost., 1834 & 1835. 216 p. Columbus, 1835. 205 p.

SAY, Thomas. Descriptions of some new terrestrial and fluviatile shells of North America. (In New Harmony Disseminator for Useful Knowledge. 1829. p. 244–46, 259–61, 275–77, 291–93, 308–10, 323–25, 339–41, 355–56. Aug. 12, 26; Sept. 9, 23; Oct. 7, 21; Nov. 4, 18. 1829 & Dec. 30, 1830 & Jan. 29, 1831, p. 3)

————. Descriptions of new species of North American insects and some observations on some already described. New Harmony, Ind., 1829–33. 65 p.

Partially published in the New Harmony Disseminator, v. 1, 1830, for June 29, July 13, 20, 27; Aug. 3, 10. All on p. 3 of each number.

SILLIMAN, Benjamin. Outline of the course of geological lectures given in Yale College. New Haven, H. Howe, 1829. 128 p.

*VIGORS, N. A. On some species of birds from the northwest coast of America. London, Oct. 1828–Jan. 1829. (In Zool. Jour. v. 4, p. 352–58)

1830 AMERICAN ALMANAC and repository of useful knowledge. Bost. 1830–61. 32 v.

ANON. Natural history of insects; illustrated with anecdotes . . . Bost. Carter & Hendee, 1830. 107 p.

Also ed. N. Y. Harper, 1830 & 1842. 2 v.

BLAKE, J. L. Conversations on vegetable physiology, comprehending the elements of botany, with their application to agriculture . . . N. Y. G. & C. Carvill, 1830. 272 p. illus.

Rev. in Amer. J. Sc. v. 18, p. 204–6. 1830.

DOUGHTY, T., and DOUGHTY, J. Pub. The Cabinet of natural history and American rural sports. Phila. 1830–32. 2 v. illus.

A monthly.

EATON, Amos. Geological text-book, prepared for popular lectures on North American geology; with applications to agriculture and the arts. Albany, Websters & Skinners, 1830. vii, [9]–63 p. illus. map.

2d ed. Albany, 1832. 134 p. illus. 5 pl. 1st ed. rev. in North Amer. Rev. v. 32, p. 471–90. April, 1831.

GREEN, Jacob. Notes of a traveller, during a tour through England, France, and Switzerland, in 1828. N. Y. G. & C. & H. Carvill, 1830. 3 v.

*HINTON, J. H. The history and topography of the United States of North America from the earliest period to the present time, comprising political and biographical history, geography, geology, mineralogy, zoology, and botany, agriculture, manufactures and commerce . . . Lond. Jennings & Chaplin. 1830–32. 2 v. 99 pl. maps.

v. 1, [6], xvi, 476 p.

v. 2, viii, [2], 580 p.

2d ed. 1834; 3d ed. 1842. 1st Amer. ed. Bost. Walker, 1834. 2 v.

Other ed. Bost. 1844, 1846, 1851; 3d ed. 1855.

See also SABIN, v. 8, p. 304–5.

*HOOKER, W. J., and *ARNOTT, G. A. W. California: botany. (In their Botany of Capt. Beechey's voyage. Lond. 1830–41. p. 134–65, 316–409, pl. 30, 72–95)

Supplement contains plants collected by David Douglas.

Above parts probably pub. 1832 & 1837 respectively.

See also BRANDAGEE, Katherine. The dates of Botany of Beechey, Flora-Boreali-Americana and Torrey & Gray's Flora. San Francisco, Feb. 21, 1894. (In Zoe. v. 4, p. 369–72)

PRINCE, W. R., and PRINCE, William. A treatise on the vine; embracing its history from the earliest ages to the present day . . . N. Y. T. & J. Swords, 1830. 355 p. pl.

RAFINESQUE, C. S. . . . American manual of the grape-vines and the art of making wine; including an account of 62 species of vines with nearly 300 varieties. An account of the principal wines and grapes. American and foreign.

Properties and uses of wines and grapes. Cultivation of vines in America and the art to make good wines, with 8 figures. Phila. Pub. for the author, 1830. 64 p. 2 pl. 12°.

————. Extrait d'une lettre de C. S. R., professeur à Philadelphie, addressèe à M. De Candolle, Mai, 1830. Genève, 1830. (In Bull. Bot. ed by Seringe. p. 214–21. 1830)

SAY, Thomas. American conchology; or, Descriptions of the shells of North America, pt. 1, 1830; pt. 2, Apr. 1831, pt. 3, Sept. 1831, pt. 4, Mar. 1832, pt. 5, Aug. 1832, pt. 6, Apr. 1834. New Harmony, Indiana, Printed at the School Press, 1830–34. [240] p. 60 col. pl.

Issued in 6 pts. A seventh was pub. by T. A. Conrad, in 1838. Each no. has 12 col. pl. Brit. Mus. Nat. Hist. Cat. Lib. gives ed. of [258] p. 68 col. pl.

Illustrated by coloured figures from original drawings executed from nature.

————. Correspondence relative to the insect that destroys the cotton plant. (In New Harmony Disseminator. 1830)

SILLIMAN, Benjamin. Report on the coal formation of the valleys of Wyoming and Lackawanna, to which are added miscellaneous remarks and communications. New Haven, H. Howe, 1830. 29 p. illus.

SMITH, Elisha. The botanic physician; being a compendium of the practice of physic upon botanical principles containing all the principal branches necessary to the study of medicine. N. Y. Murphy & Bingham, printers, 1830. 8 + 624 p.

Medicinal plants. p. 414–527.

Rev. ed. corr. & improved by I. S. Smith. N. Y. Adee, 1844. 508 p. illus. 8 col. pl.

1831 ANON. The botanist and physician; containing a description of the principal active medicinal plants found in the middle and northern states of America . . . to which is prefixed an outline of the Linnaean system of botany; intended as an introduction and glossary to the work; all designed for the use of families and the young student in botany. Kingston, N. Y., W. Culley, 1831. 151 p. 12°.

By Samuel HARLOW?, according to Library of N. Y. Bot. Garden.

ANON. Manual of the naturalist; or, Directions practical for collecting, preparing and preserving subjects of natural history. Bost. 1831.

ATWATER, Caleb. Remarks made on a tour to Prairie du Chien, thence to Washington City, in 1829. Columbus, Ohio, I. N. Whiting, 1831. vii, 296 p.

AUDUBON, J. J. Ornithological biography; or, An account of the habits of the birds of the United States of America; accompanied by descriptions of the objects represented in the work entitled: "The birds of America" and interspersed with delineations of American scenery and manners. Edinburgh, Adam Black & Phila. J. Dobson, 1831–39. 5 v. illus. royal 4°.

Text for his "Birds of America," plates only, 1827 (q. v. above)

v. 1, 1831, i–xxiv + 512 p. + 1–16
(text for plates 1–100) Pref. Mar. 1831

v. 2, 1834, i–xxxii + 588 p.
(text for plates 101–200) Pref. Dec. 1, 1834

v. 3, 1835, xvi + 638 p. (9 woodcuts)
(text for plates 201–300) Pref. Dec. 1, 1835

v. 4, 1838, xxviii + 618 p. (39 woodcuts)
(text for plates 301–387) Pref. Nov. 1, 1838

v. 5, 1839, xxxviiii + 664 p. (98 woodcuts)
(text for plates 388–435) Pref. May 1, 1839

v. 3–5 printed in Edinburgh only.

Species were described by *W. MACGILLIVRAY.

For the bibliography of the ornithological works of J. J. A., see STONE, WITMER. Auk. v. 23, p. 298–312. 1906.

See also COUES (1), pt. 1, p. 618–19.

Rev. in North Amer. Rev. v. 41, p. 194–231. July, 1835.

The "Delineations" repr. N. Y. 1926. 49 + 349 p. port. (ed. by F. H. Herrick).

See also bibliographical details in HERRICK, Francis. Audubon. N. Y. 1917. v. 2, p. 402–4.

————. . . . Under the special patronage of her Most Excellent Majesty, Queen Adelaide: the Birds of America, engraved from drawings made in the United States and their territories . . . London,

Published by the author, and to be seen at Mr R. HAVELL'S, JR., the engraver, 1831. 16 p.

BROWNE, D. J.; ed. The Naturalist; containing treatises on natural history, chemistry, domestic and rural economy, manufactures and arts . . . Bost. Pierce & Parker, Dec. 1830–Dec. 1832. 2 v. illus. pl.

v. 1, 2 + 380 p. illus. pl.

v. 2, 380 p. pub. by Allen & Ticknor.

CALDWELL, Charles. Thoughts on the original unity of the human race. Phila. 1831.

2d ed., Cincinnati, James, 1852. 165 p.

CARR, Robert. Periodical catalogue of American trees, shrubs, plants and seeds, cultivated and for sale at the Bartram Botanic Garden . . . Phila. 1831. 24 p.

Another ed. Phila. Russell & Martin, printers, 1828. 47, [1] p.

COBB, J. H. A manual containing information respecting the growth of the mulberry tree, with suitable directions for the culture of silk. Bost. Carter & Hendee, 1831. x, [11]–68 p. 3 pl. [front.]

Other ed., 1832, 1833, 1839.

1833 ed. Bost. 1833, 98 p. 3 pl.

1839 ed. Bost. Weeks, 1839. 162 p. illus. pl.

CONRAD, T. A. American marine conchology; or, Descriptions and colored figures of the shells of the Atlantic coast of North America. Phila. 1831.

Rev. in Amer. J. Sc. v. 20, p. 400–1. July, 1831.

*CUVIER, Georges, and McMURTRIE, Henry. The animal kingdom arranged in conformity with its organization . . . the Crustacea, Arachnides and Insects by P. A. Latreille . . . by Georges Cuvier, translated with notes and additions by H. McMurtrie. N. Y. Carvill, 1831. 4 v. illus. pl.

IVES, Eli, TULLEY, William, and LEAVENWORTH, M. C. Catalogue of the phaenogamous plants, and of the ferns, found within five miles of Yale College. (In Baldwin, Ebenezer. Annals of Yale College. 1831. p. 264–302)

*LINDLEY, John, and TORREY, John. Introduction to the natural system of botany, or a systematic view of the whole vegetable kingdom, together with the most important species, etc., by John Lindley; 1st American ed., with an appendix by John TORREY. N. Y. G. & C. Carvill, 1831. 392 p. pl.

PRINCE, W. R., and PRINCE, William. Pomological manual; or, A treatise on fruits; containing descriptions of a great number of the most valuable varieties for the orchard and garden. N. Y. 1831. 2 v. (2d ed. 1832)

RAFINESQUE, C. S. Enumeration and account of some remarkable natural objects in the cabinet of . . . in Philadelphia, being animals, plants, shells, and fossils, collected by him in North America, between 1816–1831. Phila. William Sharpless, 1831. 9 p. illus.

MSS copy in Zoological Library, Harvard University.

Jules Marcou's copy in Library of Amer. Mus. Nat. Hist.

————. Continuation of a monograph of the bivalve shells of the river Ohio, and other rivers of the western states, containing 46 species from 75 to 121, including an appendix on some bivalve shells of the rivers of Hindoostan, with a supplement on the fossil bivalve shells of the western states, and the Tulosites, a new genus of fossils. Phila. 1831.

For previous part see Books (1820).

SAY, Thomas. Descriptions of new species of North American insects, found in Louisiana by Joseph Barabino. New Harmony, Mar. 1831. [19 p.]

See Psyche. v. 8, p. 306–8. Jan. 1899 (An unknown tract on American insects by T. S., ed. by Scudder)

————. Descriptions of new species of Curculionites of North America, with observations on some of the species already known. New Harmony, Indiana, 1831. 30 p.

WARD, Malthus A. An address pronounced before the Massachusetts Horticultural Society in commemoration of its Third Annual Festival, Sept. 21, 1831. Bost. Printed by Buckingham, 1831. 56 p.

1832 BROWNE, D. J. The sylva Americana; or, A description of the forest trees indigenous to the United States, practically and botanically considered . . . Bost. W. Hyde & co., 1832. vii, [1], [9]–408 p. illus. pl. front.

Rev. in North Amer. Rev. v. 35, p. 399–433. Oct. 1832.

BUIST, Robert. The American flower garden directory, containing practical directions for the culture of plants in the hot-house, garden-house, flower garden . . . with lists of annuals, biennials, and ornamental shrubs . . . by Hibbert and Buist . . . Phila. A. Wildie, 1832. 375 p. col. front.

2d ed. Phila. Carey & Hart, 1839. 379 + [1] p. Number of subsequent ed.

COMSTOCK, J. L. An introduction to mineralogy . . . N. Y. Robinson, Pratt & Co., 1832. 343 p. illus.

2d ed. 1832. 3d ed. 1839; 20th ed. 1854.

————. An introduction to the study of botany; in which the science is illustrated by examples of nature and exotic plants . . . Hartford, D. F. Robinson & co., 1832. 260 p. illus.

15th ed. N. Y. 1847. 485 p. illus.

CONRAD, T. A. Fossil shells of the Tertiary formations of North America; illustrated by figures drawn on stone from nature. Phila. Judah Dobson, 1832–33. 56 p. 19 pl.

no. 1, Oct.; no. 2, Dec. 1832; no. 3, Aug.; no. 4, Dec. 1833. Repr. Wash. 1893, by G. D. Harris. 121 p. pl.

FLORAL MAGAZINE and Botanical Repository, published by D. & C. Landreth. Phila. [1832–34]. v. 1, no. 1–5. 80 p. 31 pl. 4°.

[GOODRICH, S. G.]. A book of quadrupeds for youth, embracing descriptions of the most interesting and remarkable quadrupeds in all countries, with particular notices of those of America . . . N. Y. P. Hill, 1832. 343 p. illus.

GREEN, Jacob. A monograph of the Trilobites of America, with coloured models of the species. Phila. J. Brano, 1832. 93, [1] p.

Rev. in Amer. J. Sc. v. 23, p. 395–98. Jan. 1833.

Supplement appeared in 1835 (q. v.)

HARRIS, T. W. A discourse delivered before the Massachusetts Horticultural Society, on the celebration of its fourth anniversary, Oct. 3, 1832. Bost. 1854.

Treats of the relations between plants, insects, etc.

HOWARD, Horton. An improved system of botanic medicine. Columbus, Ohio, 1832. 2 v. 12 pl.

Other subsequent editions.

1st ed. contains: ROBINSON, Samuel. A lecture, introductory to a course, on the science of life, organization . . . 13 p.

JAEGER, Benedict. Museum Neo-Caesariensis. Princeton, N. J., 1832. 32 p.

In MSS at Princeton University Library. For contents see WEISS, H. B. B. J. (In N. J. Hist. Soc. Proc. n. s. v. 7, p. 204–5. 1922)

LESTER, William, Jr. Geological map of New London and Windham counties, Connecticut. Hartford, 1832.

Rev. by Mather in Amer. J. Sc. v. 23, p. 404. Jan. 1833.

MORSE, Ebenezer. Manual of mineralogy and geology. Albany, Webster & Skinner, 1832. 297 p.

NUTTALL, Thomas. A manual of the ornithology of the United States and of Canada . . . the land birds. Cambridge, [Mass.], Hilliard & Brown, 1832. viii, 683 p. 53 woodcuts.

2d ed. Bost. 1840. viii, 832 p. 1st ed. rev. in Amer. J. Sc. v. 20, p. 154–55, 1831 & v. 22, p. 178–79. 1832.

See also CHAMBERLAIN, Montague. Popular handbook of the ornithology of the U. S. . . . based on Nuttall's Manual. Bost. 1891. 2 v. (Another ed. 1896 & 1903)

See also NUTTALL, 1834, below.

See also COUES (1), pt. 1, p. 620, 628.

RAFINESQUE, C. S. Atlantic journal, and friend of knowledge. In eight numbers. Containing about 160 original articles and tracts on natural and historical sciences, the description of about 150 new plants and 100 new animals or fossils. Many vocabularies of languages, historical, and geological facts. Phila. 1832–33. 212 p. illus. front. tab.

Appeared quarterly. Analysis of contents in CALL, R. E. Rafinesque. 1895. (Filson Club. Pub. no. 10, p. 183–91)

————. Remarks on the Encyclopaedia of plants of Loudon, Lindley and Sowerby. (In Loudon's Gardener's Mag. v. 8, p. 245–48. 1832)

Repr. in Jour. Bot. v. 38, p. 224–29. 1900. "An overlooked paper by Rafinesque," by James Britten.

*RIO, A. M. de. Elementos de orictgnósia, ó del conocimiento de los fosiles, negun el sistema de Barcelio, y segun los principios de A. G. Werner con la sinonimia inglesa, alemans y francesa, para uso del seminario nacional de mineria de México. . . Phila. J. P. Hurtel, 1832. vii, 683 + [1] p. 24 pl.

First appeared in Mexico City, 1795 & 1805. 2 v. (171 + 208 p.) 2d ed., parte practica.

RUFFIN, Edmund. An essay on calcareous manures. Petersburg, Va., J. W. Campbell, 1832. 242 p.

2d ed. 1835, 116 p. 3d ed. 1842, 316 p. illus.

SAY, Thomas, and BARABINO, Joseph. New species of North American insects found by Joseph Barabino, chiefly in Louisiana. New Harmony, Indiana, 1832. 16 p.

SHEPARD, C. U. Treatise on mineralogy . . . New Haven, 1832. xix, [1], 256 p. illus.

Rev. in Amer. J. Sc. v. 22, p. 395–402. 1832

2d ed. New Haven, Maltby, 1844. viii, 168 p. diagr. 3rd ed. New Haven, B. L. Hamlen, 1852–57. 2 v. diagr. v. 1, ix, 1, 245 p. v. 2, p. [241]–451

See also 1835: SHEPARD, for pt. 2.

WELSH, J. K. Familiar lessons in mineralogy and geology. . . Bost. Clapp & Hull, 1832–33. 2 v. illus. pl.

v. 1, 404 p.; v. 2, col. illus.

WILLIAMSON, W. D. History of the state of Maine. Hallowell, Maine, 1832. 2 v.

v. 1, ch. 1, 182 p. devoted to natural history. botany, p. 105–31; zoology, p. 132–73; mineralogy, p. 174–82.

1833 ANON. Natural history of insects; comprising their architecture, transformation, senses, foods, habits,—collection, preservation, and arrangement. Bost. 1833. 3 v. illus.

AUDUBON J. J. Les oiseaux d'Amerique. . . Paris, Renouard, 1833.

A prospectus in French & German (SABIN)

BARTON, W. P. C. Prodrome of a work to aid the teaching of the vegetable materia medica by the natural families of plants in the Therapeutic Institute of Philadelphia . . . [Phila.] 1833. vi, [7]–104 p.

BECK, L. C. Botany of the northern and middle states; or, A description of the plants found in the United States, north of Virginia, arranged according to the natural system. With a synopsis of the genera according to the Linnaean system—a sketch of the rudiments of botany, and a glossary of terms. Albany, Webster & Skinner, 1833. iv, 471 p.

2d ed. N. Y. Harper, 1848. 68 + 480 p.

Another ed. 1856 & 1868.

BRECK, Joseph. The young florist; or, Conversations on the culture of flowers, and on natural history . . . Bost. Russell, Odiorne & co., 1833. 168 p.

COOPER, J. W. The experienced botanist, or Indian physician; being a new system of practise found on botany, containing a description of medicinal plants—their properties . . . Lancaster, Pa., 1833. 303 p. 16°.

Also Ebensburg, Pa., Canan & Scott, 1833. 301 p. 16°. (Copy in Sur.-Gen. Off. Library).

COOPER, Thomas. On the connection between geology and the Pentateuch, in a letter to Professor Silliman . . . Bost. 1833. 72 p.

Another ed. Lond. 1857. 72 p.

CROOM, H. B., and LOOMIS, H. Catalogue of plants observed in the neighborhood of Newbern, N. C. Newbern, N. C., 1833. 52 p.

2d ed. entitled: A catalogue of plants native or naturalized, in the vicinity of New Bern, N. C., with remarks and synonyms. N. Y. G. P. Scott & Co., printers, 1837. 10 + 52 p.

*FINCH, J[ohn]. Travels in the United States of America and Canada, containing some account of their scientific institutions, and a few notices of the mineralogy and geology of those countries . . . Lond. Longman, Rees & co., 1833. xv, 455 p.

FLINT, Timothy. Lectures upon natural history, geology, chemistry, the application of steam, and interesting discoveries in the arts. Bost. Lilly, 1833. 408 p.

GODMAN, J. D., and COATES, Reynell. Rambles of a naturalist, by J. D. Godman; to which are added Reminiscences of a voyage to India, by Reynell Coates. Phila. T. T. Ash, 1833. 151 p.

From the Quaker periodical, "The Friend"

GOULD, A. A. Lamarck's Genera of shells, with a catalogue of species; translated from the French by A. A. Gould. Bost. 1833.

Gould added a list of American species.

HOLBROOK, Josiah. First lessons in geology for the use of families, schools and lyceums. Bost. Brown & Peirce, 1833. 64 p. 12°.

HOLLEY, M. A. Texas: observations, historical, geographical, and descriptive . . . Baltimore, Armstrong & Plaskitt, 1833. 167 p.

Another ed. Lexington, Ky., 1836. viii, 410 p. map. & Balt. 1838.

HUNT, William. The cabinet of nature and philosophy; book one, the Cabinet of shells. Bost. Munroe & Francis, 1833. 16 p. pl.

KENRICK, William. The new American orchardist; or, An account of the most valuable varieties of fruit adapted to cultivation in the climate of the United States from the latitude of 25° to 54° . . . also a brief description of the most ornamental forest trees, shrubs, flowers, etc. Boston. Carter, 1833. xxxi, [25]–423 p.

Other ed., 1835, 1841, 1842, 1843, 1845.

KERCHEVAL, Samuel. A history of the valley of Virginia. Winchester, 1833. [2], 486 p.

2d ed. Woodstock, Va., 1850. 447 p.

See also SABIN, v. 9, p. 459.

LEA, Isaac. Contributions to geology . . . Phila. Carey, Lea & Blanchard, 1833. 227 p. 6 pl. [228 col. fig.]

Contents: Tertiary formation of Alabama; New Tertiary fossil shells from Md. & N. J.; New genus of fossil shell from N. J.; Tufaceous lacustrine formation of Syracuse, N. Y. See also Merrill (1), p. 320. Rev. in Amer. J. Sc. v. 25, p. 415–23. 1833. For itemized list of contents, see U. S. Nat. Mus. Bull. no. 23, 1885, p. 5–10, (item no. 18). Bibliog. of Publ. Isaac Lea by N. P. Scudder. This work was dedicated to Judge Charles Tait of Claiborne, Ala., who collected most of the shells described.

*MORICAND, M. E. Plantes nouvelles d'Amériques, par Stefano Moricand . . . Genève, primerie de J. G. Fick, 1833–46. iv, 176 p. 100 pl. (2 double). 32 cm.

See also Soc. Phys. et d'Hist. Nat. Genève. Mem. 1833. v. 6, p. 529–36, pl. 1–6; & v. 7, p. 249–264. 1836. pl. 7–16.

PEALE, T. R. Lepidoptera Americana; or Original figures of the moths and butterflies of North America, in their various stages of existence, and the plants on which they feed, drawn on stone and coloured from nature with their characters, synonyms, and remarks on their habits and manners. . . Phila. W. Gibbons, 1833. 14 p. 12 col. pl.

MATHER, W. W. Elements of geology . . . Norwich, Conn., 1833. 139 p.

4th ed. N. Y. 1841. 286 p.

RAFINESQUE, C. S. Herbarium Rafinesquianum . . . or, Botanical collections of C. S. Rafinesque. Phila. 1833–34. 80 p.

Full bibliographical details may be found in Brit. Mus. Nat. Hist. Cat. Library. v. 4, p. 1639.

———— Remarques botaniques sur quelques plantes de l'Amerique Septentrionale, dans les quatres premiers volumes du "Prodromus ou Synopsis plantarum de De Candolle." (In Soc. Linnaean, Bordeaux. Actes. v. 6, p. 261–69. 1833)

*RENNIE, James, and CLARK, Arabella. Alphabet of botany for the use of beginners by James Rennie; revised and corrected for the use of American schools, by Arabella Clark. N. Y. Peter Hill, 1833. 149 p. illus.

RIDDELL, J. L. Catalogue of plants growing spontaneously in Franklin County, Ohio. Cincinnati, 1833–34. (In Western Med. Gaz. v. 2, p. 116–20, 154–59)

SILLIMAN, Benjamin. Consistency of discoveries of modern geology, with the sacred history of the Creation and the Deluge. New Haven, 1833.

Another ed. Lond. J. S. Hodson, 1837. 148 p.

SMITH, J. V. C. Natural history of the fishes of Massachusetts, embracing a practical essay on angling. Bost. 1833. 248 p. pl.

Rev. by D. H. Storer in Amer. J. Sc. v. 39, p. 337–49. 1839, in a paper read before Bost. Soc. Nat. Hist. (1830), Mar. 20, 1839.

TAYLOR, R. C. Report on the surveys undertaken with a view to the establishment of a railroad, from the coal and iron mines, near Blossburg, or Peter's Camp to the state line at Lawrenceville . . . Pa., and a mineralogical report on the coal region in the environs of Blossburg. Phila. Mifflin & Parry, 1833. 52 p. map. diagr.

WYETH, J. B., and WATERHOUSE, Benjamin. Oregon; or, A short history of a long journey from the Atlantic Ocean to the region of the Pacific by land . . . Cambridge, Mass., 1833. 87 p.

Repr. (In Thwaites, R. G. ed. Early western travels, 1905. v. 21, p. [17]–106)

1834 BACHMAN, John. An account of some experiments made on the habits of the vultures inhabiting Carolina, the turkey buzzard, and the carrion crow. Charleston, S. C. 1834. 16 p.

———— Catalogue of phaenogamous plants and ferns, native or naturalized found growing in the vicinity of Charleston, S. C. Charleston, Printed by A. E. Miller, 1834. 15 p.

*Beyrich, Carl. Nachricht von Herrn Beyrich aus Nord-Amerika uber die jenigen Baume, welche er bisjetzt auf sienen Reisen gelegenheit hatte, zu betrachten, mitgetheilt und mit Anmerkungen begleitet von Herrn Schoch. (In Allgemeine Gartenzeit. Berlin, 1834. v. 2, p. 292–96)

*Brown, Thomas. Illustrations of the game birds of North America chiefly the size of nature . . . ed. by Thomas Brown. Edinburgh, Frazer. 1834. 16 col. pl. (21½ x 16½ cm)

See also Auk. v. 20, p. 237–41. Apr. 1903, by Walter Faxon.

COMSTOCK, J. L. Outlines of geology; intended as a popular treatise on the most interesting parts of the science, together with the examination of the question, whether the days of creation were indefinite periods . . . Hartford, Conn., Robinson & co., 1834. 12 + 336 p. illus.

2d ed. N. Y. 1836. 3d ed. N. Y. 1838. 384 p.

Other ed., in 1838 and 1841.

Conrad, T. A. New fresh water shells of the United States, with colored illustrations and a monograph of the genus anculotus of Say; also a synopsis of the American Naiades. . . Phila. Judah Dobson, 1834. 76 p. 8 pl. [49 fig.]

French ed. Paris, A. Franck, 1845. 33, [2] p. 4 pl. (. . . Bibliotheque Conchyliologique.)

*DOUGLAS, David. Journal kept by David Douglas during his travels in North America, 1823–27, together with a particular description of thirty-three species of American oaks and eighteen species of Pinus; with appendices containing a list of the plants introduced by Douglas and an account of his death in 1834 . . . London, William Wesley & son, 1914. 364 p. port.

Posthumous publication issued under the direction of the Royal Horticultural Society. Includes his 1833–34 journey.

[HAWKS, F. L.] The American forest; or, Uncle Philip's conversations with the children about the trees of America. N. Y. Harper, 1834. 250 p. illus. pl.

Another ed. 1841.

HIBBERT, T[homas], and BUIST, R[obert]. The American flower-garden directory, containing practical directions for the culture of plants in the hot-house, garden-houses, flower-garden and rooms or parlors for every month in the year; with a description of the plants most desirable in each, the nature of the soil and situation best adapted to their growth, the proper season for transplanting. Phila. & Baltimore, for the authors by Adam Waldie, 1834. ix, 7–375 p. [1] p. pl.

Other ed., 1839 & 1845.

JOHNSON, Laura, and EATON, Amos. Botanical teacher for North America, in which are described the indigenous and common exotic plants growing north of Mexico, by Laura Johnson, with the supervision of A. Eaton. Troy, N. Y., 1834. 268 p.

2d ed., Troy, 1840. Rev. by Asa Gray & Amos Eaton in Amer. J. Sc. v. 42, p. 184–85, 377–78. 1842.

LATROBE, J. H. B. Address to the Horticultural Society of Maryland, May 15, 1834. Baltimore, John D. Toy, 1834. 24 p.

LEA, Isaac. Observations on the genus Unio, together with descriptions of new genera and species in the families Naïades, Çonchae, Colimacea, Lymnaeana, Melaniana and Peristomiana: consisting of four Memoirs read before the American Philosophical Society from 1827 to 1834, and originally published in their Transactions . . . Phila. Printed for author by James Kay, Jr., & Co. 233 p. 46 pl. 4°.

Dedicated to P. H. NICKLIN. See also Amer. Phil. Soc. (1769)

MATHER, W. W. Sketch of the geology and mineralogy of New London and Windham Counties, Conn. Norwich, 1834. 36 p. map.

MOORE, N. F. Ancient mineralogy; or, An inquiry respecting mineral substances mentioned by the ancients with occasional remarks on the uses to which they are applied. N. Y. G. & C. Carvill, 1834. 192 p.

MORRIS, Eastin. The Tennessee gazeteer . . . Nashville, W. Hassell Hunt & Co., 1834. [4], cxvi, [18] p.

MORTON, S. G. Synopsis of the organic remains of the Cretaceous group of the United States, illustrated by nineteen plates, to which is added an appendix, containing a tabular view of the Tertiary fossils hitherto discovered in North America . . . Phila, Key & Biddle, 1834. vi, [7]–88, [4], 8, [8 p], 19 pl. [170 fig.]

Repr. with corrections and additions of his papers rd. before Phila. Acad Nat. Sc. (1812), rd Dec. 11, 1827 et seq. See v. 2, p. 155 of this Bibliography.

NUTTALL, Thomas. A manual of the ornithology of the United States and of Canada; the water birds. Bost. Hilliard, Gray & co., 1834. 7 + 627 p. illus.

See v. 1, above under 1832.

RAVENEL, Edmund. Catalogue of the recent shells in the cabinet of . . . Charleston, S. C., 1834. 20 p.

RIDDELL, J. L. A catalogue of plants growing spontaneously in Franklin County, Central Ohio, excluding grasses, mosses, lichens, fungi, etc.

Cincinnati, July, 1834. (In Western Med. Gazette. v. 2, no. 3, p. 116–20)

ROGERS, H D. Report on the geology of North America. (In British Assoc. Adv. Sc. Rept. 1834. p. 1–66)

[RUSCHENBERGER, W. S. W.] Three years in the Pacific; including notices of Brazil, Chile, Bolivia, and Peru, by an officer of the United States Navy . . . Phila. Carey, Lea & Blanchard, 1834. xi, [1], [9]–441 p.

SCHOOLCRAFT, H. R. . . . Extracts from a lecture delivered before the Detroit Lyceum . . . relative to the natural history of Michigan. Detroit, 1834. (In Historical & scientific sketches of Michigan. p. 177–91)

Delivered in 1831. Originally in "Michigan Advertiser" for May, 1831.

TAYLOR, R. C. A description of a fossil vegetable of the family Fucoides in the transition rocks of North America and some considerations connected with it. (In Mag. Nat. Hist. Lond. 1834. v. 7, p. 27–32)

TROOST, Gerard. Description d'un nouveau genre de fossiles. (In Soc. Geol. de France. Mem. v. 3, p. 87–96, 3 pl. 1834)

WARREN, John. The conchologist. Bost. Russell, Odiorne, & Metcalf, 1834. 2 + 204 p. 17 pl.

1835 ANON. Natural history of insects; second series. N. Y. Harper, 1835. 2 v. illus.

ANON. The naturalist's own book; comprising descriptions and authentic anecdotes of quadrupeds, scientifically arranged according to the system of Cuvier, by the author of the "Young man's own book." Phila. Key & Biddle. 1835.

*BEYRICH, Carl. Eine Schilderung des Gartenbaues in den sudlichen Atlantischen Staaten von Nord-Amerika. (In Verein Beforderung Gartenbaues Preuss. Verhandlungen. Berlin, 1835. v. 11, p. 195–200)

BOTANICAL INVESTIGATOR, see below FLOYD.

BOTANICAL SENTINEL and Literary Gazette, devoted to the only rational and scientific system of medical practices yet discovered, denominated the Thomsonian system, pub. by John Coates, Jr. Phila. 1835–40. 5 v. (weekly).

BRIDGEMAN, Thomas. The florist's guide; containing practical directions for the cultivation of annual, biennial, and perennial flowering plants, of different classes, herbaceous and shrubby, bulbous, fibrous, and tuberous-rooted, including the double dahlia, greenhouse plants, etc. N. Y. W. Mitchill, 1835. 120 p.

Other editions.

*Brown, Thomas. Illustrations of the American Ornithology of Alexander Wilson and Charles Lucien Bonaparte . . . with the addition of numerous recently discovered species and representations of the whole sylva of North America. Edinburgh, 1835. [4] + 3 p. 124 pl. 167 illus.

See also Walter Faxon in the Auk. v. 20, p. 237–41. Apr. 1903.

Carson, Joseph. On the Erythraea Chilensis. (In Phila. Coll. Pharm. Jour. v. 6, p. 276–79. 1835)

CATLIN, J. R. Synopsis of lectures on geology. Taunton, Mass., 1835. 120 p.

COMSTOCK, J. L. The young botanist; being a treatise on the science prepared for the use of persons just commencing the study of plants. N. Y. Robinson, Pratt & co., 1835. x, [9]–259 p. col. illus.

3d ed., N. Y. 1850. 243 p. illus.

Douglas, L. S. Report on the medical botany of the town of Hamilton, Madison Co., N. Y. Albany, 1835. (In Med. Soc. N. Y. Trans. v. 2, p. 209–17.)

Eights, James. 1) A synopsis of the rocks of the state of New York; 2) Notes of a pedestrian [geological notes on southeastern New York]. (In Zodiac. 1835–36. v. 1, p. 27–8; 111–12, 113–16, 141–43, 146–47, 177–78)

*Ferussac, A. E. Observations adressees en forme de lettre a MM Th. Say, C. S. Rafinesque, Is. Lea, S. P. Hildreth, T. A. Conrad, et C. A. Poulson, sur la synonymie des Coquilles bivalves de l'Amerique Septentrionale, et Essai d'une table de concordance a ce sujet . . . Paris, 1835. (In Magasin de zoologie. classe 5, no. 59–60. p. 1–36)

For contents, see Binney, W. G. Bibliography of conchology. Wash. 1863. (In Smith. Inst. Misc. Coll. v. 5, p. 46–52)

Fessenden, T. G., ed. F's silk manual and practical farmer, devoted to the culture of silk, agriculture and rural economy. Bost. 1835–36. 1 v. (192 p. illus.)

————. Horticultural register and gardener's magazine . . . Bost. G. C. Barrett, 1835–39. 4 v.

Monthly. From Jan. 1835 to Dec. 1838.

Edited in 1835 by T. G. Fessenden and J. E. Teschemacher; in 1836–37, by F. & Joseph Breck; in 1838, by Breck.

Floyd, William W. Botanic investigator; ed. & pub. by William Floyd. Vicksburg, Mississippi, 1835. 1 v.

Monthly, no. 1–2; & bi-monthly, no. 3–5, Mar. 2–Oct. 15, 1835.

Gibbes, L. R. A catalogue of the phaenogamous plants of Columbia, S. C., and its vicinity. Columbia, 1835. 13 p.

Green, Jacob. A supplement to the "Monograph of the Trilobites of North America." Phila. J. Brano, 1835. 24 p.

According to Sabin, the Supplement ends abruptly at p. 24, the rest of the MS having been lost.

HARLAN, R[ichard]. Medical and physical researches; or, Original memoirs in medicine, surgery, physiology, geology, zoology and comparative anatomy . . . Phila. Printed by Lydia R. Bailey, 1835. xxxix, [9]–653 p. 39 pl. (4 col. 12 fold.) fold. tab.

HARRIS, T. W. North American coleopterous insects in the collection of Abraham Halsey. 1835.

HAWKS, F. L. Natural history; or, Uncle Philip's conversations with the children about tools and trades among inferior animals . . . N. Y. Harper, 1835. 213 p. illus. pl. 16° (Boys' & Girls' Library, no. 6)

*HOOKER, W. J., and *DRUMMOND, Thomas. Notice concerning Drummond's collections made chiefly in the southern and western parts of the United States; described by W. J. Hooker. (In Hooker's Companion Bot. Mag. Lond. 1835. v. 1, p. 21–6, 39–49, 95–101, 170–77)

Cont. in v. 2, p. 60–4. 1836.

JAEGER, Benedict. Analytical table of a course of lectures on zoology, including comparative anatomy. Princeton, N. J. R. E. Horner, 1835. 48 p.

Copy in Princeton University Library. Seen by H. B. Weiss.

JAY, J. C. Catalogue of recent shells in the cabinet of . . . N. Y. 1835. 53 p.

2d ed. 1836, 87 p.; 3d ed. 1839, 126 p.; 4th ed. 1851, 478 p. with suppl. Rev. of 3d ed. in Amer. J. Sc. v. 37, p. 401–2. Oct. 1839 & of 4th ed. in v. 62, p. 447–48. Nov. 1851.

*LATROBE, C. J. The rambler in North America. . . N. Y. & London. Seeky, 1835. 2 v. maps.

v. 1, 11+321 p.; v. 2, 8+336 p.

LONG, S. H. Report . . . on a reconnoissance for railroads from Augusta, Ga., to Memphis, Tennessee; from Memphis to the eastern base of Cumberland Mountain, East Tennessee; and from Memphis to Savannah, Georgia. Wash. 1835. 88 p. (In U. S. 23d Cong., 2d sess. Ex. Doc. no. 177, in v. 4) Serial no. 274. Rept. made Feb. 10, 1835.

*MCNAB, James. Account of the rarer plants observed during an excursion in the United States and the Canadas in 1834. (In Edinburgh New Philos. Jour. v. 19, p. 56–64. 1835)

*PAUL, F. W. Erste Reise nach dem nordlichen Amerika in 1822–24. Stuttgart, 1835. 6 + 394 p. map.

The author was Paul Wilhelm, Herzog von Wurtemburg.

REYNOLDS, J[ohn]. Voyage of the U. S. frigate Potomac, under the command of Commodore John Downes, during the circumnavigation of the globe, in the years 1831, 1832, 1833, and 1834 . . .

N. Y. Harper & Sons, 1835. 3 p. l. [v]–x, [v]–x, [11]–560 p. fold. front. plates. (port. fold.) fold. plan.

RIDDELL, J. L. Catalogue of plants growing spontaneously in Franklin County, Central Ohio, excluding grasses, mosses, lichens, fungi, etc. (In Western Med. Mag. Cincinnati, 1835. v. 2, p. 116, 154)

ROGERS, H. D. A guide to a course of lectures on geology, delivered in the University of Pennsylvania. Phila. Printed by W. P. Gibbons, 1835. 43 p.

SHEPARD, C. U. Treatise on mineralogy; second part: consisting of descriptions of the species, and tables illustrative of their natural and chemical affinities. New Haven, H. Howe & Co., 1835. 2 v. illus. diagram. 500 illus.

v. 1, 44 + 300 p.; v. 2, 331 p. 2d ed., 1844; 3d ed., 1852–57. x, 452 p. 725 illus. 2d ed. rev. in Amer. J. Sc. v. 47, p. 333–51. Sept. 1844. Pt. 1 of the Treatise appeared in 1832 (q. v.) See also MERRILL (1), p. 227.

SILK CULTURIST and Farmer's Manual, ed. by F. G. Comstock. Hartford & Wethersfield, Conn. 1835–[39]. 4 v. illus. 4°.

TAYLOR, R. C. On the geology and natural history of the northeastern extremity of the Alleghany range, in Pennsylvania, U. S. (In Mag. Nat. Hist. Lond. 1835. v. 8, p. 529–41)

UNITED STATES MINING COMPANY. First annual report of the Board of Directors, Aug. 1835. Fredericksburg, Va., Arena printing office, 1835. 17 p. pl. maps.

1836 ANON. Charter, etc., of the George's Creek Coal and Iron Company, containing a detailed account of the geology, etc., of this locality. [Balt.] 1836.

BOTANIC LUMINARY, ed. by Hiram Wright . . . Saline, Mich. 1836–38. 2 v.

BOTANIC JOURNAL, devoted to the interest of the reformed medical practice; pub. by E. G. House. Bost. 1836–37. 1 v. (semi-monthly).

BOOTH, J. C. Report of an examination and survey of the coal lands, etc., belonging to the Boston Purchase, near Cumberland, in the state of Maryland. N. Y. D. Fanshaw, 1836. 8 p.

CARR, Robert. Periodical catalogue of fruit and ornamental trees, shrubs, green-house plants . . . cultivated and for sale at the Bartram Botanic Garden, Kingsessing, near Gray's Ferry, three miles from Philadelphia. Phila. 1836. 56 p.

History of garden, pref. p. 3–4 & in 1801 catalogue.

CARSON, Joseph. Notes on the species of Cassia which yield the senna. (In Amer. Jour. Pharm. v. 8, p. 177–87, 266–70. 1836–37)

CONRAD, T. A. Monography of the family Unionidae, or Naiades of Lamarck (fresh water bivalve shells), of North America. Illus-

trated by figures drawn on stone from nature . . . Phila. J. Dobson, 1836. 94 + [4] p. 51 col. pl.

Interleaved copy with MSS notes, in Library of Congress.

FORCE, Peter. Tracts and other papers, relating principally to the origin, settlement and progress of the colonies in North America, from the discovery of the country to the year 1776. Wash. Printed by Peter Force, 1836–46. 4 v.

These well known volumes contain much natural history material.

[GOODRICH, S. G.] Peter Parley's dictionary of the animal kingdom. N. Y. Hunt & co., 1836. 199 p. illus. (Parley's Encyclopaedia)

————. Peter Parley's tales of animals, containing descriptions of 300 quadrupeds, birds, fishes, reptiles, and insects . . . Louisville, Morton & Smith, 1836. 360 p. illus.

GRAY, Asa. Elements of botany. N. Y. Carvill, 1836. 14 + 428 p. illus.

Reissued in 1842 as "The Botanical text-book" (q. v.). Rev. in American Gardener's Mag. v. 2, p. 421–24. Nov. 1836 (Hovey's Mag.)

HALL, Frederick. A synopsis of a course of lectures on mineralogy; delivered at the Medical College, Washington, in the winter of 1835–6. Wash. J. Gideon, Jr., Printer, 1836. 24 p.

————. A trip from Boston to Littleton, through the notch of the White Mountains . . . Wash. J. Gideon, Jr., 1836. 30 p.

HOLBROOK, J. E. North American herpetology; or, A description of the reptiles inhabiting the United States. Phila. J. Dobson, 1836–38. 4 v. 111 col. pl. (147 pl.).

v. 1, 1836, 120 p. 23 pl.
v. 2, 1838, 125 (1) p. 30 pl.
v. 3, 1838, 122 p. 30 pl.
v. 4, 1838, 126 p. 28 pl.

See notes by T. N. Gill in Science. n.s. v. 17, p. 910–12. June 5, 1903; concerning a 4th volume of the 1st ed.

A second edition in 5 v., 147 col. pl. Phila. Dobson, 1842–43.

v. 1, 15, 17–152 p. 24 pl.
v. 2, 142 p. 20 pl.
v. 3, (2), 128 p. 30 pl.
v. 4, 138 p. 35 pl.
v. 5, iii–vi, 3–118 p. + [1] p. 38 pl.

For the collation and description of the contents of the two editions, see T. N. GILL. Biographical sketch of J. E. Holbrook. (In Nat. Acad. Sc. Biogr. Mem. v. 5, p. 68–73. 1905)

HUGHES, G. W. Report of an examination of the coal measures including the iron-ore deposits, belonging to the Maryland Mining Co., in Alleghany County. 1836.

IRVING, Washington. Astoria; or, Anecdotes of an enterprise beyond the Rocky Mountains . . . Phila. Carey & Lea, 1836. 2 v. map. [285; 279 p.]

Repr. N. Y. 1849; & N. Y. Putnam, 1897. 2 v.; & numerous other editions.

See SABIN, v. 9, p. 145–46.

See also WARREN, p. 36–37, (Annot. Bib.)

for the account of the voyages and travels of the fur parties sent out by Astor.

LAPHAM, I. A. A catalogue of plants and shells found in the vicinity of Milwaukee on the west side of Lake Michigan. Milwaukee, Printed at the Advertiser Office, 1836. 12 p.

LEA, Albert. Notes on the Wisconsin Territory, [particularly with reference to the Iowa District or Black Hawk purchase . . .] Phila. H. S. Tanner, 1836. 53 p. map. 12 mo.

LONG, S. H. . . . Report on a reconnaissance of Maine to Quebec . . . 1836. 80 p. (In Maine. 16th Legislature. Senate Doc. no. 9)

RAFINESQUE, C. S. The American nations; or, Outlines of their general history, ancient and modern, including the whole history of the earth and of mankind in the western hemisphere; the philosophy of American history, the annals, traditions, civilization, languages, etc., of all the American nations, empires and states. Phila. 1836. 2 v. in 1.

————. Flora Telluriana . . . introd. et classific. ad mantissa synoptica 2000 nova genera plantarum vel. nov. ord. et spec. in orbis tellurianum determ. coll. inv. . . . Phila. [Printed for the author by H. Probasco.] 1836–38. 4 pts.

Pt. 1, 103 p. Introduction & classification.
2, 112 p. Centuria 1–4.
3, 100 p. Centuria 5–8.
4, 135 p. Centuria 9–12.

See Barnhart, J. H. The dates of Rafinesque's New Flora & Flora Tellurina. (In Torreya. v. 7, no. 9, p. 177–82. Sept. 1907)

————. A life of travels and researches in North America and South Europe; or, Outlines of the life, travels and researches of C. S. Rafinesque . . . Containing his travels in North America and the south of Europe; the Atlantic Ocean, Mediterranean, Sicily, Azores . . . from 1802 to 1835—with sketches of his scientific and historical researches . . . Phila. Printed for the author by F. Turner, 1836. 148 p.

RAFINESQUE, C. S. New flora . . . introd. et classific, or, A supplemental flora additional to all the botanical works on North America, containing 1000 new or revised species . . . Phila. 1836. 4 parts.

Pt. 1 Lexicon & monographs, 99 p.; pt. 2, Neophyton, 96 p.; pt. 3, New sylva, 96 p.; pt. 4, Neobotanon, 112 p.
Pt. 1, pub. Dec. 1836; pt. 2, 1837 (2d half); pt. 3, 1838 (1st quarter); pt. 4, 1838 (late in year), according to J. H. Barnhart in Torreya. v. 7, no. 9, p. 177–82. Sept. 1907.

RIDDELL, J. L. A geological ramble to Little Mountain, near Cleveland. [Cincinnati, 1836.] 6 p.

————. Remarks on the geological features of Ohio . . . Cincinnati, 1836. (In Western Monthl. Mag. v. 5, p. 160–72)

ROGERS, R. E. Experiments on the blood, together with some new facts in regard to animal and vegetable structures illustrative of many of the most important phenomena of organic life—among them respiration, animal heat, venous circulation, secretion, and nutrition. (In Amer. Jour. Med. Sc. v. 18, p. 277–301. 1836)

TAYLOR, R. C. On the carboniferous series of the United States of North America. (In Philos. Mag. v. 9, p. 407–11. 1836)

————. A supplement to the list of species of birds occurrent on the northeastern extremity of the Alleghany mountain range and information on traits in the habits of the passenger pigeon (Columbia migratoria) and of the wolf (Canis lupus). Lond. 1836. (In Mag. Nat. Hist. ed. by Loudon. v. 9, p. 72–4)

WRIGHT, John, and HALL, John. A catalogue of plants growing without cultivation in the vicinity of Troy, N. Y. Troy, N. Tuttle, printer. 1836. 42 p.

1837 BRERETON, J. A. Botany of the District of Columbia. (In Elliott, William. The Washington guide . . . Wash. 1837. p. 295–310)

DANA, J. D. A system of mineralogy: including an extended treatise on crystallography; with an appendix containing the application of mathematics to crystallographic investigation, and a mineralogical bibliography. New Haven, Durrie, Peck, Herrick & Noyes, 1837. 14, 144 [145–52], 145–452, 119 p. illus. 4 pl. [14 + 580 p.]

Bibliography, p. 89–106. 2d ed. 1844. 633 p. 4 pl. (bibliography, p. 594–616). 3d ed. 1850. 711 p. 4th ed. N. Y. Appleton, 1854. 2 v. in 1. [320 + 534 p.] Rev. of 1st ed. in Amer. J. Sc. v. 32, p. 387–92. July, 1837; & of the 2d in v. 46, p. 362–87. April, 1844.

ELDREDGE, N. T. Report of the special agent sent to examine the mines of the Company . . . N. Y. 1837. 13 p.

*FISCHER, F. E. L., and *MEYER, C. A. [Descriptions of some Californian genera and species.] (In Linnaea. Litteratur-bericht. Halle, 1837–44. v. 11, p. 93–124; v. 12, p. 89–108; v. 13, p. 106–18; v. 15, p. 114–24; v. 16, p. 154–77; v. 18, p. 165–222)

Collected by Russian fur trading co., and seeds planted in Imperial Botanic Garden, St. Petersburg. Extracts above are from the seed lists issued by the Garden between 1834 & 1844. Transcriptions of these descriptions by J. Burtt Davy are in Erythea. v. 2, p. 136–40, 148–53, 164–70, 185–87. 1894.

HARLAN, Richard. On the affiliation of the natural and physical sciences: being the introduction to "Medical & physical researches" . . . Phila. 1837. 31 p. See above 1835—Harlan.

IRVING, Washington. The Rocky Mountains; or, Scenes, incidents and adventures, in the far west, digested from the Journal of Captain B. L. E. BONNEVILLE of the Army of the United States; and illustrated from various other sources. Phila. Carey, Lea & Blanchard, 1837. 2 v. 2 maps. [248; 248 p.]

For BONNEVILLE's Exped. to the Rockies, see WARREN, p. 31–4. It was performed during 1832–36, on a leave of absence.

JACKSON, C. T. List of mines and minerals belonging to the Maine Mining Company. Bost. 1837. 16 p.

*KIENER, L. C., and STORER, D. H. General species and iconography of recent shells, comprising the Massena Museum, the collection of Lamarck, the collection of the Museum of Natural History, and the recent discoveries of travellers, by L. C. Kiener; translated from the French by D. H. Storer. Bost. W. D. Ticknor, 1837.

Rev. in Amer. J. Sc. v. 33, p. 184–85. 1837.

LONG, S. H. Report on a reconnoissance and survey of the Western and Atlantic railroad of the state of Georgia . . . Wash. 1837. 40 p. illus. tab. map. (In U. S. 25th Cong. 2d sess. Sen. Doc. no. 57, in v. 1) Serial no. 314.

Rept. rendered Nov. 7, 1837. For a railroad to connect the Chattahoochee River to the Tenn. state line.

*RICHARDSON, John. Report on North American zoology. (In British Assoc. Adv. Sc. 6th meeting. v. 5, p. 121–224. 1837)

See also COUES, (1), pt. 1, p. 624.

TOOTHAKER, S. A. Medical botany. (In Bost. Med. & Surg. Jour. v. 16, p. 123, 142, 172, 204, 253. 1837)

WETMORE, Alphonso. Gazateer of the state of Missouri . . . St. Louis. C. Keemle, 1837. 382 p. illus. map.

Catalogue of minerals, p. 261–65.

WILLIAMS, John Lee. The territory of Florida: or, Sketches of the topography and of the civil and natural history . . . of Florida. N. Y. A. T. Goodrich, 1837. 304 p. front. pl. map.

1838 ATWATER, Caleb. A history of the state of Ohio, natural and civil. Cincinnati, Glezen & Shephard, 1838. 403 p.

2d ed. 1838, 407 p.; 3d ed. 1858.

*BONAPARTE, C. L. J. L. A geographical and comparative list of the birds of Europe and North America. Lond. J. Van Voorst, 1838. 1 p. l, [v]–vii, 67, [1] p.

Printed in double columns.

See also COUES (1), pt. 1, p. 625.

[BRUMBY, R. T.] Notes on Alabama geology. (In Alabama Almanac. 35 leaves. 1838 or 1839)

In U. S. Geol. Surv. Library.

[BRYANT, F.] Report of the hearing on the memorial of the New England Coal Mining Company for encouragement from the state . . . with the report of the committee . . . in favor of a geological and agricultural survey of the state . . . 1838. 148 p.

CONRAD, T. A. Fossils of the Tertiary formations of the United States. Illustrated by figures, drawn from nature. Phila. J. Dobson, 1838. xvi, 80 p. 49 pl.

Repr. with introd. by W. H. Dall. Phila., Wagner Free Inst., 1893. xviii, + 36 p. illus.

FEUCHTWANGER, Lewis. A treatise on gems, in reference to their practical and scientific value; a useful guide-book for the jeweller, amateur, artist, lapidary, mineralogist and chemist, accompanied by a description of the most interesting American gems and ornamental and architectural materials. N. Y. A. Hanford, 1838. 162 p. illus.

Subsequent ed. 4th ed. 1859.

[GOODRICH, S. G.] Peter Parley's Cyclopaedia of botany, including familiar descriptions of the trees, shrubs and plants . . . Bost. Otis, Broaders & co., 1838. 434 p.

HASKELL, Benjamin. On the evolution of organic existence. (In Bost. Med. & Surg. Jour. v. 19, p. 309–16. 1838)

LAPHAM, I. A. Catalogue of plants found in the vicinity of Milwaukee, Wisconsin Territory. Milwaukee, Printed at the Advertiser Office, 1836. 23 p. 16°.

[LATROBE, B. H.] Report upon the surveys . . . of the Baltimore and Ohio Railroad. . . . Baltimore, Lucas & Deaver, 1838. (2), iii, 138 p. appx. 186 p. tab.

LE LIEVRE, J. F. Nouveau jardinier de la Louisiane. Nouvelle-Orleans, 1838. 200 p.

*LENZ, T. W. Reise nach Saint Louis am Mississippimeinen, wahrend eines vierzehnmonatlichen aufenthaltes, i. d. J. 1836 und 1837, theils in Missouristaate, theils in Illinois gemachten beobachtungen und erfahrungen. Weimar, 1838. 251 p.

MANNING, Robert. Book of fruits; being a descriptive catalogue of the most valuable varieties of the pear, apple . . . also hardy ornamental trees and shrubs. Salem, 1838. 120 p.

2d ed. called "The New England Fruit Book" . . . enl. by John M. Ives, 1844. 133 p. 3rd. ed rev. 1847. 8 + 144 p.

NARDIN, D. F. Southern botanic journal, devoted to the dissemination and support of the Thomsonian system of medical practice, Charleston, S. C., 1838. [416 p.]

NEW ENGLAND COAL MINING COMPANY. A report of the important hearing on the memorial of the . . . for encouragement from the state; and on the numerous petitions from the freeholders in aid of the same; before the special select committee of the General Assembly of Rhode Island and Providence Plantations, together with the report of the committee . . . 1838. 148 p.

NUTTALL, Thomas, and CARSON, Joseph. On a near species of Tacca. (In Amer. Jour. Pharm. v. 9, p. 305–8, pl. 1838)

OBSERVER and record of agriculture, science and art; ed. by D. Pierce. Phila. [1838]–39. v. 1 only.

PARKER, Samuel. Journal of an exploring tour beyond the Rocky Mountains under the direction of the American Board of Commissioners for Foreign Missions, performed in the years 1835, 1836 and 1837; containing a description of the geography, geology, climate, and productions, and the number, manners, and customs of the natives . . . Ithaca, N. Y., Mack, Andrus & Woodruff, 1838. 371 p. map.

Rev. in North Amer. Rev. v. 50, p. 75–144. Jan. 1840.

2d ed., 1840; 3d ed., 1842. 406 p. map; 4th ed., 1844. 416 p.; 5th ed., Auburn, N. Y., 1846. 422 p.

RAFINESQUE, C. S. Alsographia Americana; or, An American grove of new or revised trees and shrubs of the genera Myrica, Calycanthus, Salix, Quercus, Fraxinus, Populus, Tilia, Sambucus, Viburnum, Cornus, Juglans, Aesculus . . . with some new genera, monographs, and many new species in 330 articles, completing 1405 g. and sp. as a continuation of the Sylva Telluriana and North American trees and shrubs. Phila. 1838. 76 p.

————. 1) Descriptions des genres fossiles Ditaxopus, Trianisitis, Trioxites, Menepites, et Trianistes; 2) Sur les fossiles de la vallee Sherman des monts Alleghany. (In Soc. Geol. Paris. Bull. v. 10, p. 378–81; p. 381–83. 1838–39)

————. Sylva Telluriana; mantis synopt.: new genera and species of trees and shrubs of North America and other regions of the earth, omitted or mistaken by botanical authors and compilers, or not properly classified, now reduced by their natural affinities to the proper natural orders and tribes . . . being a supplement to the Flora Telluriana . . . Phila. 1838. 184 p.

RENWICK, James. Outlines of geology, prepared for the use of the Junior class of Columbia College. N. Y., Henry Ludwig, 1838. 96 p.

Rev. in Amer. J. Sc. v. 34, p. 183–85. April, 1838.

RIDDELL, J. L. Monograph of the ligneous plants indigenous to Ohio. (In Hesperian, or Western Monthly Mag. Columbus, 1838. v. 2, p. 257–63)

RUSCHENBERGER, W. S. W. A voyage round the world; including an embassy to Muscat and Siam, in 1835, 1836, and 1837. Phila., Carey, Lea & Blanchard, 1838. 559 p.

SHEPARD, C. U. Address . . . Sept. 25, 1838. New Haven, Babcock & Galpin, 1838. 24 p.

Del. before New Haven Hort. Soc.

SILLIMAN, Benjamin, Sr., and SILLIMAN, Benjamin, Jr. Extracts from a Report to the Maryland Mining Company. N. Y. 1838. 27 p.

SOUTHERN BOTANIC JOURNAL, see NARDIN, above.

SULLIVANT, Joseph. An alphabetical catalogue of shells, fossils, minerals, and zoophytes, in the cabinet of . . . Columbus, Ohio, 1838. 38 p.

TORREY, John, and GRAY, Asa. A flora of North America: containing abridged description of all the known indigeneous and naturalized plants growing north of Mexico; arranged according to the natural system. N. Y. Wiley & Putnam, 1838–43. 2 v.

v. 1, 1838–40. 711 p.; v. 2, 1841–43. 504+[2] p.

The dates of publication of the various parts of these volumes are given by Katherine Brandagee in Zoe. v. 4, p. 369–72. San Francisco, Feb. 21, 1894; as follows:

v. 1, pt. 1, p. 1–184, July, 1838.
pt. 2, p. 185–360, Oct.
pt. 3, p. 361–544, June, 1840.
pt. 4, p. 545–698, 699–711, June, 1840.
v. 2, pt. 1, p. 1–184, May, 1841.
pt. 2, p. 185–392, Apr. 1842.
pt. 3, p. 393–504, Feb. 1843.

See also Jour. Bot. Lond. 1893. v. 31, p. 297–98. (B. D. Jackson)

See also Ethelyn Tucker in Arnold Arbor. Jour. v. 2, p. 183–84. 1921.

See also E. L. Greene in Pittonia. Berkeley, Cal., 1888. v. 1, p. 238–45. & Preston, H. W. Two editions of . . . in Rhodora. v. 8, p. 232–33. 1906.

Reviews of v. 1, pt. 1–2, by J. L. Russell, in Mag. Hort. & Bot. v. 5, p. 66–9, Feb. 1839. v. 1, also rev. in Amer. J. Sc. v. 35, p. 180–82. 1839 & of v. 2, in v. 41, p. 275–83, Oct. 1841. v. 2 also rev. in North Amer. Rev. v. 67, p. 174–93. July, 1848.

*WIED-NEUWIED, M. A. P., Prince zu. Reise in das innere Nord-America . . . in den jahren 1832 bis 1834, mit 49 kupfern, 33 vignetten, viele holzschnitten und einer charte . . . Coblenz, [1838], 1839–41. 2 v. illus. pl. atlas of 84 pl. 4°.

Issued in 20 pts.

v. 1, [1838]–39, xvi + 653 + [2] p.

v. 2, 1840–41, xxii, [2], 687 p.

See also British Mus. Nat. Hist. Cat. Library. v. 5, p. 2316.

Appx. contains Plants of Mt. Pocono, by L. D. de SCHWEINITZ, v. 1, p. 631–36.

Botany of Missouri, by C. G. Nees von ESENBECK, v. 2, p. 429–54. Uber die fossilien Pflanzen-Abdrucke von Much-Chunk, by VON GOPPERT, v. 1, p. 636–42. Verzeichniss der in wintermonaten am Wabasch vorkommenden Vogel, v. 1, p. 643–44.

English ed. transl. by H. E. LLOYD, Lond. 1843. 520 p.

The Reise repr. in THWAITES, R. G. ed., Early western travels. Cleveland, 1904–07. v. 22–25.

WYATT, Thomas. A manual of Conchology, according to the system laid down by Lamarck, with the late improvements by De Blainville, exemplified and arranged for the use of students. N. Y. Harper, 1838. 191 p. 36 pl.

1839 AMERICAN CULTIVATOR; (agriculture, horticulture, science and home literature). Bost. 1839–1915. 77 v.

AUDUBON, J. J. A synopsis of the birds of North America. Edinburgh & London. Black, 1839. 12 + 359 + [1] p.

Preface dated, Edinburgh, July 1, 1839. See also COUES (1), pt. 1, p. 625.

BOTANIC ADVOCATE and Journal of Health; ed. by J. WRIGHT. Montpelier, Vt., 1836–39. 3 v. (Monthly).

CLARKE, John. A treatise on the mulberry tree and silk worm; and on the production and manufacture of silk. Phila. 1839. 363 p. illus.

*DAUBENY, Charles G. B. Sketch of the geology of North America, being the substance of a memoir read before the Ashmolean Society, Nov. 26, 1838. Oxford, 1839. 18 + 73 p. map. Also in Ashm. Soc. Oxford Trans. v. 7.

Dedicated to members of American Philosophical Society.

*HAMPE, E. Relation uber die von dem Reisen den C. Beyrich auf seiner letzten Reise in Nord-Amerika gesammelten Laubmoose. Halle, 1839. (In Linnaea. v. 13, p. 39–48)

KINMONT, Alexander. Twelve lectures on the natural history of man, and the rise and progress of philosophy . . . Cincinnati, U. P. James, 1839. viii, 355 p.

Contains Biographical sketch of the author.

LEE, C. A. The elements of geology, for popular use; containing a description of the geological formations and mineral resources of the United States. N. Y. Harper, 1846. viii, viii, 375, [2] p. illus. pl.

Preface dated Oct. 14, 1839.

*LICHTENSTEIN, H. Beitrag zur ornithologischen Fauna von Californien nebst Bemerkungen uber . . . Berlin, 1839. (In Königl. Akad. Wiss. Berlin. Abhandl. für 1838–39 p. 417–51)

LOCKE, John. An introductory lecture on chemistry and geology; delivered before the class of the Medical College of Ohio, Cincinnati, 1839. 18 + [1] p.

MATHER, W. W. Report on the geological reconnoissance of Kentucky, made in 1838. [Frankfort, 1839] 40 p.

Report made to Governor.

MORRIS, J. G., and HALL, Frederick. Popular lectures on geology . . . by K. C. Von Leonhard . . . translated by Rev. J. G. Morris and ed. by F[rederick] Hall . . . Baltimore, Hickman, 1839–41. 397 p. illus. pl. diagr. (Issued in 4 pts).

MORTON, S. G. Crania Americana; or, A comparative view of the skulls of various aboriginal nations of North and South America; to which is prefixed an essay on the varieties of the human species . . . Phila. J. Dobson, 1839. [4], v, 296, [1] p. 78 pl. col. map. Folio.

Rev. in North Amer. Rev. v. 51, p. 173–86. July, 1840; & Amer. J. Sc. v. 38, p. 341–75, illus. 1840; & Geogr. Soc. Jour. v. 10, p. 552–61. 1841; & Edinburgh New Philos. Jour. v. 29, p. 111–39. 1840.

POE, E. A. The conchologist's first book; or, A system of testaceous malacology . . . arranged expressly for the use of schools. Phila. Pub. for the author, by Haswell, 1839. 156 p. 12 pl.

2d ed. 1840, 166 p. & 1845. 12 mo. Reputed to be a copy of a work by Capt. Thomas Brown, Glasgow, 1833. (Intern. Mthly. Oct. 1850.) Written in conjunction with Thomas Wyatt and Henry McMurtrie.

POTTER, Nathaniel. Notes on the Locusta septentrionalis Americanae decem septim. Baltimore, 1839. 27 p. 1 pl.

RAFINESQUE, C. S. American manual of the mulberry trees. Their history, cultivation, properties, diseases, species and varieties, &c., with hints on the production of silk from their barks. . . Phila. 1839. 96 p. (Publications of the Eleutherian of Knowledge, no. 5.)

SHEPPARD, F[orrest]. Report to the Alleghany and Potomac Coal and Iron Manufacturing Co. 1839.

SILLIMAN, Benjamin. Extracts from a Report made to the Maryland, New York Coal and Iron Company, on the estate of the said Company in the County of Alleghany, Md. Lond. 1839. 80 p.

Includes a report by Benjamin Silliman, Jr.

———— Suggestions relative to the philosophy of geology, as deduced from the facts, and to the consistency of both the facts and theory of this science with Sacred History. New Haven, B. L. Hamlen, 1839. 119 p.

Appx. to 3d Amer. ed. from 5th English ed. of Bakewell's geology.

STRONG, H. K., and others. Report to the legislature of Pennsylvania, containing a description of the Swatara Mining District. . . Harrisburg, Pa., 1839. 60 p. illus. map.

TOWNSEND, J. K. Narrative of a journey across the Rocky Mountains to the Columbia River, and a visit to the Sandwich Islands, Chili, etc., with a scientific appendix. Phila. Perkins, 1839. viii, [9]–352 p.

Appx. contains Catalogues of Quadrupeds from Oregon Territory, p. [311]–31; of Birds, p. 331–52. Repr. in (Early western travels, 1748–1846. . . ed. by R. G. Thwaites. Cleve. 1905. v. 21, p. 107–369, 2 pl.) This does not include the Scientific Appx.

See also COUES (1), pt. 1, p. 627.

VIGORS, N. A. The zoology of Captain Beechey's Voyage; compiled from the collections and notes made by Captain Beechey, the officers and naturalist of the expedition, during a voyage to the Pacific and Behring Straits, performed in his majesty's ship Blossom . . . Lond Bohn, 1839. 12, 180 p. 47 col. pl.

See also COUES (1), pt. 1, p, 627–28.

WELD, H. T A report of the Maryland and New York Iron and Coal Company's land, in Alleghany Co., Maryland. 1839.

1840 AUDUBON, J. J. The birds of America, from drawings made in the United States and their territories. Phila., J. B. Chevalier; N. Y., J. J. Audubon, 1840–44. 7 v. 500 col. pl. royal 8vo.

Text and plates. Issued in 100 pts. 5 plates with each no. v. 6 & 7 issued by Audubon alone.

v. 1, pt. 1– 14	1840,	viii, [9]	–256	p. pl.	1– 70
v. 2, pt. 15– 28	1841,	viii, [9]	–205	p. pl.	71–140
v. 3, pt. 29– 42	1841,	viii, [9]	–233 + [1]	p. pl.	141–210
v. 4, pt. 43– 56	1842,	viii, [9]	–321 + [1]	p. pl.	211– 80
v. 5, pt. 57– 70	1842,	viii, [9]	–346 + [1]	p. pl.	281–350
v. 6, pt. 71– 84	1843,	viii, [9]	–457 + [1]	p. pl.	351–420
v. 7, pt. 85–100	1844,	[9]	11–371 + 1	p. pl.	421–500

Preface to v. 1, dated Nov. 1839. Another ed., 1856. 7 v. 500 col. pl.

Plates originally issued in 1827 (q.v. above)

Text pub. under title: "Ornithological Biography" in 1831 (q.v. above). This ed. does not include the "Delineations of American scenery and manners."

See also Stone, Witmer. Bibliography of the ornithological works of J J. A. Auk. v. 23, p. 298–312. 1906. See also Herrick, F. H. Audubon. 1917. v. 2, p. 404–5. v. 2, rev. in Amer. J. Sc. v. 42, p. 130–36. Jan. 1842.

Other ed. 1856, 1861, 1865 & 1871.

See also COUES (1), pt. 1, p. 629–30, 644, 661–62, 669, 686.

BARRATT, Joseph. Salices Americanae: North American willows, disposed in sections, or natural groups, with notes and observations of a practical nature, showing the kinds best adapted for the useful arts, and those most esteemed in ornamental culture. Middletown, Conn. C. H. Pelton, printer, 1840. 16 p. (8l) 4°. (31 x 23 cm.)

Originally pub. in part, 1834.

———— Remarks on the canker-worm moth, and other insects injurious to the orchard and forest trees. (In New England Farmer. v. 18, p. 392–93. May 27, 1840)

HALDEMAN, S. S. A monograph of the freshwater univalve Mollusca of the United States, including notices of the species in other parts of North America. Phila. [1840–45]. 8 parts. [221 p.] 38 pl. illus.

Pt. 1–2 Paludina. 32 p. 10 pl. July, 1840 & Jan. 1841.
3–5 Limnaea. 55 p. 15 pl. July, 1841 & Jan. & July, 1842.
6 Physa. 40 p. 5 pl. Jan. 1843.
7 Planorbis; Ancylus; Index to Physadae, 32+14+2 p. 4 pl. Jan. 1844.
8 Amnicola; Valvata; Ampullaria. 24+11+11 p. 4 pl. June, 1845.

See also BINNEY, W. G. (ANNOT. BIB.), p. 65.

Reissued in 1871 with a ninth part.

See Amer. Jour. Conch. v. 7, p. 202. Ed. by G. W. Tryon.

HALL, Frederick. Letters from the East and from the West . . . Wash., F. Taylor & W. M. Morrison, 1840. 11, 168 p.

Contains geological and mineralogical observations.

First published in the "National Intelligencer"

HARLAN, Richard, ed. & tr. History of embalming, and of preparations in anatomy, pathology, and natural history; including an account of a new process for embalming, by J. N. Gannal . . . tr. from the French, with notes and additions, by Richard Harlan, M.D. Phila. J. Dobson, 1840. 2 p. l, 264 p.

HITCHCOCK, Edward. Elementary geology. Amherst, Mass., J. S. & C. Adams, 1840. 320 p. illus. tab. pl. diagr.

2d ed., 1841, 346 p.; 3d ed., 1844, 352 p.
8th ed., 1847, 361 p.; 30th ed., 1855, 424 p.
1860 ed., edited by C. H. Hitchcock; 31st ed., 1862. 430 p.
1st ed., rev. in Amer. J. Sc. v. 39, p. 391–92. Oct. 1840 & in North Amer. Rev. v. 52, p. 103–9. Jan. 1841.
2d ed. rev. in North Amer. Rev. v. 54, p. 238–39. Jan. 1842. 3d ed., rev. in v. 56, p. 435–51. 1844.

MOORE, F[rancis], Jr. Map and description of Texas, containing sketches of its history, geology, geography, and statistics, and some brief remarks upon the character and customs of its inhabitants. Phila. H. Tanner, Jr., 1840. 143 + [1] p.
2d ed. N. Y. Tanner & Disturnell, 1844. 143 + [1] p.

MORTON, S. G. Catalogue of skulls of man, and the inferior animals in the collection of. . . Phila. Printed by Turner & Fisher, 1840. 48 p.
3d ed. x, 74 p. 1849.

OWEN, D. D., & MACLURE, William. Catalogue of mineralogical and geological specimens at New Harmony, Indiana, collected in various parts of Europe and America, By William MACLURE, late president of the Academy of Natural Sciences of Philadelphia; arranged for distribution at the request of Miss Maclure and Alexander Maclure his executors. New Harmony, Indiana, 1840. 16 p.
Contains a list of 290 species. Copy seen is in the N. Y. Public Library.

RAFINESQUE, C. S. The good book, and amenities of nature; or, Annals of historical and natural sciences, Containing selections of observations, researches and novelties in all the branches of physical and historical knowledge, with letters of eminent authors—chiefly on zoology, botany, agronomy, geognosy, ethnography, or organized beings and fossils, nations and languages. Phila. Printed for the Eleutherium of knowledge, 1840. 84 p.
Originally planned to consist of 10 numbers of 60–100 p. each. Contents given in CALL, R. E. Rafinesque. 1895. (Filson Club. Pub. no. 10. p. 204–5) p. 49–61, repr. in Amer. Midl. Nat. (1913–14), v. 3, appx. "Scadiography." (Series repr. rare classical works Nat. Hist. no. 3). p. 23–28 repr. as no. 4 of the series.

———— Autikon Botanikon. . .
See under 1815.

SHEPARD, C. U., and SHEPHERD, Forrest. Reports . . . respecting mineral deposits in the states of Missouri and Illinois. [Bost. 1840?] 12 p. map.
Reports addressed to Boston Association for purchasing mineral property in these states.

SULLIVANT, W. S. Catalogue of the plants, native or naturalized, in the vicinity of Columbus, Ohio. Columbus, C. Scott, printer, 1840. iv, 5–63 p.

TAYLOR, R. C. Two reports on the coal lands, mines and improvements of the Dauphin and Susquehanna Coal Company, and of the geological examinations, present condition and prospects of the Stony Creek coal estate, in the townships of Jackson, Rush, and middle Paxtaug, in the county of Dauphin, and of East Hanover township, in the county of Lebanon, Pa., with an appendix addressed . . . to the directors of the Dauphin and Susquehannah Coal Company and to the trustees of the Stony Creek Coal Estate. . . Phila. E. G. Dorsey, 1840. 113 + 74 p. pl. 3 maps. diagr.

TESCHEMACHER, J. E. A concise application of the principles of structural botany to horticulture; chiefly extracted from the works of Lindley, Knight, Herbert and others; with additions and adaptations to this climate. Bost. Little, Brown, 1840. v, [7]–90 p.

1841 BIGELOW, J. M., and HOR, Asa. Florula Lancastriensis; or, A catalogue comprising nearly all the flowering and filicoid plants growing naturally within the limits of Fairfield County, with notes of such as are medical. (In Medical Convention of Ohio. Lancaster, Ohio, 1841. Proc. for 1841. p. 49–79.)

CATLIN, George. Letters and notes on the manners, customs and conditions of the North American Indians . . . written during eight years' travel, from 1832 to 1839, amongst the wildest tribes of Indians in North America. N. Y. Wiley & Putnam. 2 v.

v. 1, viii, 264; v. 2, viii, 266; 312 pl. maps.

For numerous other editions, see SABIN, v. 3, p. 437–38.

DARBY, John. A manual of botany, adapted to the productions of the southern states . . . In two parts . . . Macon, Ga., B. F. Griffin, 1841. xii, [13]–156, xx, 344 p. illus.

Pt. 1 Vegetable anatomy & physiology.

Pt. 2 Descriptive botany arranged on the natural system, preceded by an analysis.

DARLINGTON, William. A plea for a national museum and botanic garden to be founded on the Smithsonian Institution, at the city of Washington. West Chester, Pa., 1841. 12 p.

See also Smith. Inst. (1846), v. 3, p.

DOWNING, A. J. A treatise on the theory and practise of landscape gardening, adapted to North America; with a view to the improvement of country residences. Comprising historical notices and general principles of the art, directions for laying out grounds and arranging plantations, the description and cultivation of hardy trees . . . N. Y. Wiley & Putnam, 1841. 2 p. l, viii, [9]–451 p. front. illus.

Numerous ed. down to date.

EMMONS, Ebenezer. Geology of the Montmorencei. (In Amer. Mag. 1841.)

Repr. in Amer. Geol. v. 2, no. 2, p. 94–100. Aug. 1888.

————. Report of E. Emmons, in answer to a resolution of the assembly calling for information in relation to the steel ore at Duane. [Albany, N. Y. 1841]. 4 p.

N. Y. State Docs. Assembly Doc. no. 182. 1841.

GIRAUD, J. P., Jr. A description of sixteen new species of North American birds described in the Annals of the New York Lyceum of Natural History collected in Texas in 1838. . . . N. Y. George F. Nesbitt, 1841. 18 leaves, [8 pl.] Folio.

See also Note by P. L. Sclater in Zool. Soc. London. Proc. 1855. p. 65, 66. See notes in COUES (1), pt. 1, p. 630–31.

*KENNEDY, William. The rise, progress, and prospects of the Republic of Texas. London, R. Hastings, 1841. 2 v. 2 maps. [liii, 378 p.; iv, 548 p.]

Repr. in abridged form, N. Y. Benjamin & Young, 1844. 118 p. See HILL, (Annot. Bib. in v. 1), p. 13–4.

KING, Henry. Report of a geological reconnaissance of part of the Missouri River, adjacent to the Osage River, 1839. [1840] [1841.] 19 p.

Copy in U. S. Geol. Surv. Library. Rept. made to Chief Eng. W. H. Morrell.

KOCH, A. C. Description of the Missourium Leviathan, or Missouri Leviathan . . . together with its supposed habits. . . . St. Louis, Chas. Keemle. 1841. 16 p.

2d ed. Louisville, Prentice & Weissinger, Ky., 1841. 20 p. Another ed. Lond. E. Fisher, 1841. 24 p. See J. D. Dana in Amer. J. Sc. ser. 3, v. 9, p. 335–46. 1875.

For other editions see SABIN, v. 9, p. 533–34.

LINDLEY, John. The theory of horticulture; or, An attempt to explain the principal operations of gardening upon physiological principles; 1st Amer. ed., with notes, etc., by A. J. Downing and A. Gray. N. Y. Wiley & Putnam, 1841. 11 + 346 p. illus.

Same, 2d. ed. 1852, 1859. 15 + 364 p.

LONG, S. H. . . . A report on the improvement of the Red River. . . . Wash. 1841. 23 p. (In U. S. 27th Cong. 1st sess. Sen. Doc. no. 64.) Serial no. 390.

Report made from Marietta, Ga., June 10, 1841.

MORRIS, J. G. An address on the study of natural history. . . . Baltimore, 1841. 23 p.

Delivered bfeore Philomathean Soc., Pennsylvania College, Gettysburg, Pa., Feb. 16, 1841.

NEWHALL, J. B. Sketches of Iowa; or, The emigrant's guide, containing a correct description of the agricultural and mineral resources, geological features and statistics of the territory of Iowa . . . N. Y. J. H. Colton, 1841. 252 p. map.

Other ed., Lond. Stutter, 1844. 99, [1] p., & Burlington, Iowa, 1846. 106 p.

ORCHARDIST'S COMPANION; a quarterly journal devoted to the history character, properties, modes of cultivation and all other matters appertaining to the fruits of the United States; ed. by Alfred HOFFY. Phila. 1841–43. 2 v. illus. pl. 4°.

RAFINESQUE, C. S. . . . Manual of the medical botany of the United States, containing a description of fifty-two medical plants, with their names, qualities, properties . . . with remarks on nearly 500 substitutes. Phila. 1841. xii, 259 p. 52 pl.
For 1st ed., see 1828: RAF.

————. Remarks on the physical geography of North America. (In Geogr. Soc. Jour. v. 11, p. 165–70. 1841.)

*RIO, A. M. del. Manual de geologia . . . Mexico City, 1841. 70 p. 27 pl. 4°.
For the use of the College of Mines.

RUSCHENBERGER, W. S. W. . . . Physiology and animal mechanism; first book of natural history . . . from the text of Milne-Edwards & Achille Comte. . . . Phila. & N. Y. Turner & Fisher, 1841. 107 p. 6 pl. (In his First books on natural history. v. 1.)

*SCHERPF, G. A. Entstehungsgeschichte und gegenwartiger Zustand des neuen, unabhangigen, Amerikanischen Staates Texas: Ein Beitrage zur Geschichte Statistik und Geographie dieses Jahrhunderts, im Lande selbst gesammelt. Augsburg, 1841. 6–154 p. 2 maps.

WOODBRIDGE, W. C. Description des Monts Apalaches. (In Soc. Geogr. Paris, 1841. Bull. v. 16, p. 25–39.)

1842 AGASSIZ, Louis. Nomenclator zoologicus, continens nomina systemica generum animalium, tam viventium quam fossilium, eyc. Soleure, 1842–46.
Rev. by Asa Gray in Amer. J. Sc. v. 53, p. 302–9. Mar. 1847.
See full title, etc. under ANNOTATED BIBLIOGRAPHY, (v. 1, p. 31.)

CARSON, Joseph. Observations on Zamia integrifolia—the plant which affords Florida arrow root. (In Amer. Jour. Pharm. v. 14, p. 22–6. 1842.)

EMMONS, Ebenezer. Topography, geology and mineral resources of the state of New York. Albany, March, 1842. (In Gazateer State N. Y.)
Repr. in Amer. Geol. v. 2, p. 352–55. Nov. 1888.

GOODRICH, S. G. A pictorial natural history: embracing a view of the mineral, vegetable and animal kingdoms, for the use of schools. Bost. J. Munroe & co., 1842. 415 p. illus.

GRAY, Asa. The botanical text-book, for colleges, schools and private students, comprising . . . N. Y. Wiley & Putnam; Bost. Little & Brown, 1842. 3 p. l., [xi]–xii, [13]–413 p. illus.

CONTENTS:

Pt. 1 An introduction to structural and physiological botany.
2 The principles of systematic botany, with an account of the chief natural families of the vegetable kingdom and notices of the principal useful plants.

Originally pub. under title "Elements etc.," 1833 (q.v.) 2d ed. 1845. 509 p.

5th ed. 1858. In 1865, it appeared as "Introduction to structural & systematic botany. . . ." 5th & rev. ed. of work above. Numerous subsequent ed. 1st ed. rev. in Amer. J. Sc. v. 43, p. 388–89. Oct. 1842; & in North Amer. Rev. v. 56, p. 192–207. Jan. 1843. 2d ed. rev. in Amer. J. Sc. v. 49, p. 189–90. June, 1845; also in North Amer. Rev. v. 61, p. 254–58. July, 1845, & v. 67, p. 174–93. July, 1848: also in Amer. Quart. J. Agric. & Sc. v. 2, p. 281–84. Oct. 1845. 5th ed. rev. in North Amer. Rev. v. 87, p. 321–42. Oct. 1858.

HALDEMAN, S. S. Zoological contributions. . . . Phila. 1842–43. 2 nos.

no. 1 On some American species of Hydrachnidae. 1842. 6 p. 1 pl.
2 On the impropriety of using vulgar names in zoology. 1843.

HITCHCOCK, Edward. American geology—erratic blocks—glacial section. (In Edinburgh. New Philos. Jour. v. 32, p. 74–80. 1842)

JOHNSON, Louisa. Every lady her own flower gardener . . . containing . . . directions for cultivating plants . . . in the northern and southern states . . . Charleston, S. C., Babcock & co., 1842. 142 p. 12 mo.

*LYELL, Charles. . . . Eight lectures on geology, delivered at the Broadway Tabernacle in the city of New York . . . reported for the New York Tribune. N. Y. Greeley & McElraeth, 1842. 56 p. illus. diagr.
On the Tertiary formations and their connection with the chalk in Virginia and other parts of the U. S. (In Geol. Soc. Lond. Proc. v. 3, p. 735–42. 1842.)

MITCHELL, Elisha. Elements of geology, with an outline of the geology of North Carolina; for the use of the students of the [Yale University.] no place, 1842. 141 p. map.

MORTON, S. G. Remarks on the diversity of the human species: an introductory lecture. Phila. 1842.

NUTTALL, Thomas. The North American sylva; or, A description of the forest trees of the United States, Canada, and Nova Scotia, not described in the work of Andrew MICHAUX, and containing all the forest trees discovered in the Rocky Mountains, the territory of Oregon, down to the shores of the Pacific, and into the

confines of California, in various parts of the United States . . . Phila., J. Dobson, 1842–49. 3 v. 121 col. pl. 4°.

These volumes constitute v. 4–6 of F. A. Michaux's "N. A. Sylva." (See above 1817: MICHAUX).

v. 1, pub. by J. Dobson, 1842. 12+136 p. 40 pl.

v. 2, pub. by Townsend Ward, 1846. 123 p. pl. 41–80.

v. 3, pub. by Smith & Wistar, 1849. 148 p. pl. 81–121. Pl. 30–31 omitted. Extra pl. for no. 5 & 10.

Volume 1 rev. in North Amer. Rev. v. 59, p. 189–238. July, 1844.

Another ed., edited by J. J. SMITH. Phila. D. Rice & A. N. Hart, 1857–59. 5 v. 277 col. pl. In this ed. Nuttall's volumes constitute v. 4–5 (3 v. in 2; 207, 215 p.)

POWELL, L. M. . . . Report . . . of the survey of the coast of the Gulf of Mexico from Appalachicola to the mouth of the Mississippi River. Wash. 1842. 34 p. (In U. S. 27th Cong. 2d sess. H. Ex. Doc. no. 220, v. 4) Serial no. 404.

Report made Dec. 1, 1841. T. A. CONRAD accompanied the expedition in an unofficial capacity. See Amer. J. Sc. ser. 2, v. 2, p. 36–48. July, 1846.

PRESCOTT, William. Catalogue of the marine fluviatile and terrestrial shells of Massachusetts. Lynn, Mass., July 8, 1842. 1 leaf. 4°.

From SABIN, v. 15, p. 436.

RUSCHENBERGER, W. S. W. . . . Mammalogy: natural history of mammiferous animals; second book of natural history, prepared for the use of schools and colleges, from the text of Milne-Edwards and Achille Comté. . . . Phila. & N. Y. Turner & Fisher, 1842. 151 p. illus. pl. port. (Ruschenberger's series. First books of natural history. v. 2.)

————. . . . Ornithology: the natural history of birds. . . . Phila. & N. Y. Turner & Fisher, 1842. 125 p. 8 pl. front. (Ruschenberger's series. First books of natural history.)

————. Reptiles and fishes. . . . Phila. & N. Y. Turner & Fisher, 1842. 145 p. illus. 6 pl. (Ruschenberger's series. . . . 4th book of natural history.)

*SMITH, J. G. A brief historical description and historical review of East Tennessee. Lond. 1842. 71 p.

THOMPSON, Zadock. History of Vermont, natural, civil and statistical; in three parts, with a new map of the state. Burlington, C. Goodrich, 1842. 3 pts. in 1. illus. pl. map. (200 engravings)

Pt. 1 Natural history—224 p. Botany, by William OAKES. p. 173–221.

New ed. 1853, with appx. on natural history, 64 p. Partly assisted by T. M. BREWER. Birds. C. B. ADAMS. Shells. D. H. STORER. Reptiles & fishes. William OAKES. Plants.

Appx. to the History. 1853. 63, [1] p.

Another ed. 1854. 4 pt. in 1 v.

Index to the "History" in Vermont Hist. Soc. Proc. for 1911–12. (Montpelier, 1913. p. 163–266), by William A. Ellis.
See also COUES (1), pt. 1, p. 640–41.

TRIMMER, Joshua. Practical geology and mineralogy. Phila. 1842.

TUCKERMAN, Edward. On Oakesia, a new genus of the order Empetreae. (In Hooker's London Jour. Botany. v. 1, p. 443–47. 1842)

WHEATLEY, C. M. Catalogue of the shells of the United States, with their localities. N. Y. 1842. 35 p.
Another ed. 1845.

1843 AMERICAN AGRICULTURIST; designed to improve the planter, the farmer, the stock breeder and the horticulturist; ed. by A. B. & R. L. Allen & Orange Judd. N. Y. 1843–[1900]. v. 1–66. illus.
See note in Bradley Bibliography, v. 3, p. 2.

BACHMAN, John. An inquiry into the nature and benefits of an agricultural survey of the state of South Carolina. Charleston, S. C., Miller & Browne, 1843. 42 p.

COZZENS, Issachar, Jr. A geological history of Manhattan, or New York Island, together with a map of the island, and a suite of sections, tables and columns, for the study of geology, particularly adapted for the American student. N. Y., W. E. Dean, 1843. 114 p. 9 col. pl. tab.

DARLINGTON, William, and BALDWIN, William. Reliquiae Baldwinianae: selections from the correspondence of the late William Baldwin, M.D., Surgeon, in the U. S. N., with occasional notes, and a short biographical memoir, compiled by William Darlington. Phila., Kimber & Sharpless, 1843. 346 p. [1], port.
Rev. in Amer. J. Sc. v. 46, p. 192–95. Dec. 1843.

*DAUBENY, Charles G. B. Journal of a tour through the United States and in Canada, made during the years 1837–38. Oxford, Printed by T. Combe, 1843. 6 + 231 p.

GILPIN, Thomas. An essay on organic remains, as connected with an ancient tropical region of the earth. Phila. E. H. Butler, 1843. 39 p.

*HINDS, R. B., and others. Zoology of the Voyage of H. M. S. Sulphur, under the command of Capt. Sir Edward Belcher . . . ed. by R. B. Hinds . . . Lond., Smith, Elder & co., [1843–45]. 2 v. 4°.
v. 1, [2], 150 p. 64 pl.; v. 2, 72, [5] p. 21 col. pl. v. 1, mammalia, by J. E. GRAY. Birds, by J. GOULD; Fish, by J. RICHARDSON; v. 2, MOLLUSCA, by R. B. HINDS. For Botany, see 1844: BENTHAM, below.

HOOPER, Lucy. The lady's book of flowers and poetry, to which are added a botanical introduction and a complete floral introduction; ed. by Lucy Hooper. N. Y., J. C. Riker, 1843. 275 p.

KOCH, A. C. A catalogue of . . . remains of the Mastodonoid animals of North America, collected by. . . . Lond. 1843. 12 p.
A sale catalogue.

LAPHAM, I. A. Topographical and geological description of Wisconsin. Milwaukee, 1843. 96 p.

LAWRENCE, Byrem. A concise description of the geological formations and geological localities of the western states designed as a key to the geological map of the same. Boston, 1843. 48 p.

RUSCHENBERGER, W. S. W. . . . Mollusca: the elements of conchology . . . from the text of Milne-Edwards and Achille Comte. . . . Phila. & N. Y. Turner & Fisher, 1843. 104 p. illus. front. (In his First books of natural history. v. 5)

————. Mammalogy: the book about quadrupeds, arranged from Ruschenberger's "First books of natural history". . . . Phila. & N. Y. Turner & Fisher, 1843. 72 p. illus. pl. (On cover: Turner & Fisher's Juvenile naturalist)

SILLIMAN, Benjamin. Coal, its origin and organic remains; a lecture. . . . Pittsburgh, 1843.
Delivered before Wirt Inst. & citizens of Pittsburgh.

TREGO, C. B. A geography of Pennsylvania, containing an account of the history, geographical features, soil, climate, geology, botany . . . with a separate description of each county . . . Phila. Biddle, 1843. 384 p. illus. pl. maps.
Botany, p. 57–75, Birds by HALDEMAN, p. 77–8.

BATES, J. Botany indispensably necessary to the physician. Albany, N. Y., 1844–46. (In Med. Soc. N. Y. Trans. v. 6, p. 144–55)

*BENTHAM, George. Botany of the Voyage of H. M. S. Sulphur. Lond. Smith, Elder & co., 1844. 195 p. 60 pl. 4°.
Botany of California, p. 2–57.

1844 *BERTOLONI, Antonio. [Plantae alabamenses.] Miscellanea botanica. (In Acad. Sci. Inst. Bonon. Nov. Comm. v. 7, p. 199–203; v. 8, p. 74–84, 385–94, pl. 8–13, 30–35, 1844–46)
Cont. in Acad. Sci. Bologna. Mem. v. 2, p. 306–19, pl. 17–20, 596–607, pl. 41–44; v. 4, p. 71–9, pl. 2–4; v. 5, p. 437–43, pl. 18–21; v. 6, p. 467–73, pl. 23–27; v. 7, p. 355–61, pl. 18–20. 1850–56.

BROOKS, Charles. On the introduction of natural history as a regular classic in our seminaries: an address delivered before the American Institute of Instruction at Portland, Me., August 31, 1844. Bost. Ticknor & Co., 1844. 24 p.

BUIST, Robert. The rose manual; containing accurate descriptions of all the finest varieties of roses, properly classed in their respective families, their character, and mode of culture with directions for their propagation, and the destruction of insects. . . . Phila. 1844. 1 pl. [vii]–xii, [13]–182 p.
A number of subsequent ed.

DARLINGTON, William. Address delivered before the Philadelphia Society for promoting agriculture, at the annual exhibition, held October 17, 1844. n. p., 1844. 16 p.

Also Germantown, Pa., G. Telegraph, 1844. 8 p.

DRAPER, J. W. A treatise on the forces which produce the organization of plants. With an appendix containing several memoirs on capillary attraction, electricity and the chemical action of light. N. Y. Harper, 1844. xi, 108, 216 p. 3 pl. front.

*EHRENBERG, C. G. Uber zwei neue Lager von Gebirgsmassen aus Infusorien als Meeresabsatz in Nord-Amerika und eine Vergleichung derselben mit den organischen Kreide-Gebilden in Europa und Afrika. (In König. Preuss. Akad. Wiss. Berlin. Bericht, 1844. p. 57–97.)

EMMONS, Ebenezer. The Taconic system, based on observations in New York, Massachusetts, Maine, Vermont, and Rhode Island. Albany, 1844. vii, 66 p. illus. 5 pl. 4°.

See N. Y. Nat. Hist. Surv. (1836), under Emmons.

FEATHERSTONHAUGH, G. W. Excursion through the slave states, from Washington on the Potomac, to the frontier of Mexico, with sketches of popular manners and geological notices. N. Y. Harper, 1844. x, [11]–168 p.

Another ed. London, J. Murray, 1844. 2 v. illus. pl. maps.

GIRAUD, J. P., Jr. The birds of Long Island . . . N. Y. Wiley & Putnam, 1844. xxiv, 397 p.

Only 200 copies circulated. See also COUES (1), pt. 1, p. 633–34.

*GOSSE, P. H. 1) Notes on the dirt-daubers, North American insects belonging to the wasp tribe; 2) Notes on a voyage up the Alabama River. (In the Zoologist, ed. by Newman. v. 2, p. 582–86; 703–9. 1844)

GRAY Asa. Longevity of trees. (In North Amer. Rev. v. 59, p., 189–238. July, 1844)

Repr. in his Scientific Papers. 1889. v. 2, p. 71–124.

GREENHOW, Robert. The history of Oregon and California, and the other territories on the northwest coast of North America, accompanied by a geographical view and map of those countries, and a number of documents as proofs and illustrations of the history . . . Boston, Little & Brown, 1844. 18+482 p. pl. maps.

Extended from his "Memoir, historical and political on the northwest coasts of North America, and the adjacent territories. . . ." N. Y. 1840. 228 p.

HALL, James. Address before the Society of Natural History of Auburn Theological Seminary. Auburn, N. Y., 1844. 20 p.

*KENNEDY, William. Texas: its geography, natural history and topography. New Orleans, 1844. 118 p.

See above 1841 for original Lond. ed. German ed., Frankfurt-am-Main, 1845. 212 p.

*KITTLITZ, F. H. von. Vierundzwanzig vegetations-Ansichten von Küstenländern und Inseln des stillen Oceans, ausgenommen in den Jahren 1827, '28 und '29 auf der Entdeckungsreise der kaiserlich russüchen Corvette Senjawin unter Captain Lütke. Siegen, [1844–45]. 68 p. 24 pl. 4°.

Transl. by Berthold Seemann. Lond. Longman, 1861. 10 + 68 p. 24 pl. 4°. "Twenty-four views of the vegetation of the coasts and islands of the Pacific, with explanatory descriptions. . . ."

See also SABIN, v. 9, p. 513.

LAPHAM, I. A. A geographical and topographical description of Wisconsin, with brief sketches of its history, geology, mineralogy, natural history and population. Milwaukee, P. C. Hale, 1844. 255 p. [1], map.

2nd ed., 1846. Milwaukee, Hopkins, 1846. 208 p.

*PHILLIPS, William, *ALLAN, Robert, and ALGER, Francis. An elementary treatise on mineralogy; comprising an introduction to the science, by William Phillips; 5th ed. from the Lond., 4th ed., by Robert Allan; containing the latest discoveries in American and foreign mineralogy, with numerous additions to the Introduction, by Francis Alger. Bost., W D. Ticknor, 1844. 662 p.

Rev. in Amer. J. Sc. v. 47, p. 333–51. Sept., 1844; & in North Amer. Rev. v. 59, p. 240–43. Sept. 1844, by Benjamin Silliman, Jr.

RUPP, I. D. History of Lancaster Co., Pa. Lancaster, Pa., G. Hills, 1844. 531 p. front. pl. tab.

Mollusca, by S. S. Haldeman, p. 479–82. Geology & natural history, p. 465–82; botany, by Wm. Darlington, p. 483–507. Birds, by J. J. Libhart, p. 508–11.

RUSCHENBERGER, W. S. W. . . . Elements of botany, prepared for the use of schools and colleges . . . from the text- of Milne-Edwards, and Achille Comte. Phila., Grigg Eliot & co., 1844. 161 p. illus. pl. (In his First books of natural history. v. 7)

1845 AUDUBON, J. J., and BACHMAN, John. The viviparous quadrupeds of North America . . . N. Y., J. J. Audubon, 1845–46. 3 v. 150 col. pl. Imperial folio.

Originally issued in 30 parts of 5 plates each. No text, gives only titles, table of contents and names on plates. 76 pl. drawn by J. J. A.; and 74 by John Woodhouse Audubon assisted by Victor G. Audubon. Each pl. 28″ x 22″.

v. 1, pts. 1–15, pl. 1–75, 1845.

v. 2, pts. 16–30, pl. 76–150, 1846.

Another ed. 1849–54. 3 v. 155 col. pl. entitled the Quadrupeds of N. A.

Text appeared in 1846 (q.v. Audubon, under 1846).

See also Herrick, Francis. Audubon. N. Y. 1917. v. 2, p. 405–6, & Auk. v. 23, p. 298–312. 1906. (Witmer Stone).
See also COUES (1), pt. 1, p.

BURT, W. A., and HUBBARD, Bela. Reports relative to the character and condition of the mineral regions in the Lake Superior country, in the state of Michigan and the territory of Wisconsin, 1845. Wash. 1845. 29 p. (In U. S. 29th Cong., 1st sess., Sen. Doc. no. 357, v. 7) Serial no. 476.
Burt's Report, p. 2–19; Hubbard's, p. 20–9.
Another ed. Detroit, 1846. 108 p.

CHAPMAN, A. W. List of plants growing spontaneously in the vicinity of Quincy, Florida. (In Western Jour. Med. & Surg. Louisville, 1845. v. 3, p. 1–23)

*CHENU, J. C. Bibliotheque conchyliologique . . . Paris, 1845–46. 5 v.
Contains translations of 3 American works on conchology, all in v. 3.
SAY, Thomas. Conchyliologique. . . . 64 p. 17 pl.
CONRAD, T. A. Nouvelles coquilles d'eau douce des Etats-Unis suivies de la Monographie du genre Aneulotus de Say, et du tableau synoptique des Naiades d'Amerique. 33 p. 4 pl.
RAFINESQUE, C. S. Monographie des coquilles bivalves fluviatiles de la rivière. 30 p. 3 pl.

CROGHAN, John. Rambles in the Mammoth Cave during the year 1844, by a visitor . . . Louisville, Ky., Morton & Griswold, 1845. 101 p. 6 pl. fold. map.

DARLING, Noyes. An address upon injurious insects, delivered before the New Haven Horticultural Society, and the New Haven Agricultural Society, at their annual fair, October 1, 1845. New Haven, 1845. 52 p.

DOWNING, A. J. The fruits and fruit trees of America; or, The culture, propagation, and management, in the garden and orchard, of fruit trees, generally; with descriptions of all the finest varieties of fruit, native and foreign, cultivated in this country . . . N. Y., Wiley & Putnam, 1845. xix, 594 p. illus.
Numerous subsequent ed.

*GEYER, C. A. Notes on the vegetation and general character of the Missouri and Oregon territory, made during a botanical journey from the state of Missouri, across the south pass of the Rocky Mountains, to the Pacific during the years 1843 & 1844. (In Lond. Jour. Bot. v. 4, p. 479–92, 653–62, 1845; & v. 5, p. 22–41, 198–208, 285–310, 509–24. 1846)

GOOD, P. P. The family flora and materia medica botanica, containing the botanical analysis, natural history, and chemical and medical properties of plants. N. Y., 1845. 2 v. 98 pl.
New ed., Elizabethtown, N. J., 1847. Cambridge, 1854.

[GOODRICH, S. G.] Illustrative anecdotes of the animal kingdom . . . Bost. Bradbury, Soden & co., 1845. 336 p. illus. (Parley's Cabinet Library)

————. The wonders of geology, by the author of Peter Parley's Tales. Bost. Bradbury, Soden & co., 1845. 291 p.

KOCH, A. C. Description of the Hydrarchos Sillimani, (Koch), a gigantic fossil reptile, or sea-serpent, lately discovered by the author in the state of Alabama, March, 1845; together with some geological observations made on different formations of the rocks, during a geological tour through the eastern, western and southern parts of the United States, in the years 1844–1845. N. Y. 1845. 16 p. illus.

2d ed. N. Y. 1845. 24 p.

————. Die Riesenthiere der Urwelt, oder das neuentdeckte Missourium theristocauldon (Sichelzahn aus Missouri) und die Mastodonoiden im allgemeinen und besondern. Berlin, 1845. 99 p. 8 pl.

Abstract also in Zeitschr. für Erdkunde. v. 4, p. 33–51. 1845.

*LONSDALE, William. Indications of climate afforded by Miocene corals of Virginia. (In Geol. Soc. Lond. Quart. Jour. v. 1, p. 427–29. 1845)

*LYELL, Charles. Travels in North America in 1841–42; with geological observations on the United States, Canada, and Nova Scotia. . . . Lond. J. Murray, N. Y. Wiley & Putnam, 1845. 2 v. illus. pl. maps [xiii, [2], 316 p.; viii, 272 p.]–Lond. ed. [vi, vii, vi, 251 p.; [2], 221 p.]–N. Y. ed. Other ed. N. Y. Wiley, 1852 & 1856.

Rev. in North Amer. Rev. v. 61, p. 498–518. Oct. 1845; Amer. J. Sc. v. 49, p. 368–73. Oct. 1845; Amer. Quart. J. Agric. & Sc. v. 2, p. 265–71. Oct. 1845.

————. Notes on the Cretaceous strata of New Jersey and parts of the United States bordering the Atlantic. (In Geol. Soc. London. Quart. Jour. v. 1, p. 55–75. 1845)

————. On the probable age and origin of a bed of Plumbago and anthracite occurring in micha schist, near Worcester, Mass. (In Geol. Soc. Lond. Quart. Jour. v. 1, p. 199–206. 1845)

————. On the Miocene Tertiary strata of Maryland, Virginia and of North and South Carolina. (In Geol. Soc. Lond. Quart. Jour. v. 1, p. 413–29. 1845)

*————. Observations on the white limestone and other Eocene or older Tertiary formation of Virginia, South Carolina and Georgia. (In Geol. Soc. Lond. Quart. Jour. v. 1, p. 429–42. 1845)

READ, William. Catalogue of the marine, fluviatile, and terrestrial shells of Massachusetts. Lynn, 1845.

RUSCHENBERGER, W. S. W. . . . Elements of entomology; prepared for the use of schools and colleges . . . from the text of Milne-Edwards and Achille Comté. Phila. Grigg, Elliott & co.,

1845. x, 7–121 p. illus. pl. front. (In his First books of natural history, v. [6])

————. . . . Elements of herpetology, and ichthyology . . . from the text of Milne-Edwards and Achille Comté . . . Phila. Grigg & Elliott, 1845. 145 p. illus. pl. front. (In his First books of natural history. v. 4)

SCHOOLCRAFT, H. R. Oneota; or, Characteristics of the red race of America, from original notes and manuscripts. N. Y. Wiley & Putnam, 1845. 512 p. illus.

Other ed.

SHORT, C. W. Observations on the botany of Illinois, more especially in reference to the autumnal flora of the prairies. Louisville, Ky., 1845. (In Western Jour. Med. & Surg. v. 3, p. 185–98)

SLACK, D. B. An essay on the human color. Providence, J. F. Moore, 1845. 100 p.

Originally appeared in 3 pts in the Bost. Med. & Surg. Jour. v. 30, p. 475–79, 495–99, 518–22. 1844.

TAYLOR, R. C. Reports on the Washington silver mine in Davidson County, N. C., with an appendix containing assays of the ore. . . . Phila. E. G. Dorsey, 1845. 40 p. (In Owen, Richard. Rept. Geol. Exam. N. C. & Tenn. Indianap. 1869)

WHITTLESEY, Charles. A dissertation upon the origin of mineral coal. Cleveland, Printed by M. C. Younglove, 1845. 24 p.

WOOD, Alphonso. A class-book of botany designed for colleges, academies . . . in two parts . . . Claremont, N. H., 1845. 2 v. (124 + 474 p.)

Pt. 1 Elements of botanical science.

2 Natural orders, illustrated by a flora of the northern U. S., particularly New England and New York.

2d ed. enl. 1848. 645 p. By 1869, there were some 41 editions issued.

Rev. in Amer. Quart. J. Agric. & Sc. v. 2, p. 107–9. July, 1845.

1861 ed. rev. in Amer. J. Sc. v. 82. p. 127–30. July, 1861.

1846 ANON. The monthly flora; or, Botanical magazine, comprising the history, description, and coloured engravings of 24 exotic flowers, 24 wild flowers of America, and 12 trees with fruits; with an introduction of the physiology of plants and a tabular view of the Linnaean systm. . . . N. Y. Lewis & Brown, 1846. 124 p. 58 pl.

ANON. Rambles in the Mammoth Cave, during the year 1844, by a visitor. Louisville, 1846. pl. plans.

AUDUBON, J. J., and BACHMAN, John. The Viviparous quadrupeds of North America. N. Y. Pub. by J. J. Audubon & V. G. Audubon, 1846–54. 3 v. 4°.

v. 1, i–xvi, 1–390 p. 1846. Pub. J. J. A. (Text only). English imprint, Lond. Wiley & Putnam, 1847.
v. 2, 336 p. 1851. Pub. by V. G. Audubon. (Text only)
v. 3, i–vi, 1–350 p. 6 col. pl. 1854. Pub. by V. G. A. (Text) See above 1845 for issue of Plates only. See Herrick, Audubon. 1917. v. 2, p. 406. See also Witmer Stone. Auk. v. 23, p. 298–312. 1906. For an octavo ed. combing plates & text see 1854 below.

BAIRD, S. F. Hints for preserving objects of natural history prepared for Dickinson College, Carlisle, Pa. Carlisle, 1846. 12 p.

BARRATT, Joseph. Geology of Middletown and vicinity. Middletown, Conn., 1846.
"A Sentinel & Witness extra."

————. . . . On the tracks of large birds, found at Middletown, Conn. Middletown, 1846.
A broadside (SABIN)

BOSSON, C. P. Observations on the potato, and remedy for the potato plague, in two parts; containing a history of the potato, its cultivation and uses; also, a treatise on the potato malady, its origin and appearances in different countries, a view of various theories concerning it, with the remedies proposed and an inquiry into the causes producing the disease, with directions for staying its further progress. Bost. 1846. 118 p.

BROWNE, D. J. The trees of America; native and foreign, pictorially and botanically delineated, and scientifically and popularly described . . . N. Y., Harper & bro., 1846. 12+520 p. illus.
2d ed. 1857. Rev. in Amer. J. Sc. v. 52, p. 442–44. Nov. 1846.

*BUNBURY, C. J. F. On some remarkable fossil ferns from Frostburg, Md., collected by Mr. Lyell. (In Geol. Soc. Quart. Jour. Lond. 1846. v. 2, p. 82–91, 2 pl.)

CURTIS, A. Synopsis of a course of lectures on medical science delivered to the students of the Botanico-Medical College of Ohio. Cincinnati, 1846. 16+464 p.
Useful plants, p. 426–55.

DARLINGTON, William. Address before the Chester County horticultural society, at their first annual exhibition, in the borough of West Chester, Sept. 11, 1846. West Chester, Pa., 1846. 15 p.

DOWLER, Bennett. Contributions to the natural history of the alligator (Crocodilus Mississippiensis), with a microscopic addendum. . . . New Orleans, 1846. (In New Orleans Med. & Surg. Jour.)

EIGHTS, James. Outlines of the geological structure of Lake Superior mineral region belonging to the N. Y. and L. S. Mining Co., Albany N. Y., 1846. 21 p. (Appx. to First Amer. Rept. of the Company)

GRAY, A. B. Mineral lands on Lake Superior. . . . Wash. 1846. 16 p. (In U. S. 29th Cong. 1st sess. H. Doc. no. 211) Serial no. 486.

*HARTWEG, Theodore. Journal of a mission to California in search of plants. (In Horticultural Soc. Lond. Jour. v. 1, p. 180–85; v. 2, p. 121–25, 187–91; v. 3, p. 217–28. 1846–48)

See also art. by W. L. Jepson. The explorations of Hartweg in America. Erythea. v. 5, p. 31–5, 51–6, 1897.

Journal repr. in (Muhlenbergia. v. 7, p. 20–4, 25–32, 37–43, 49–50. Feb.–Apr. 1911), ed. by Alice Eastwood.

HODGSON, W. B. Memoir on the Megatherium, and other extinct gigantic quadrupeds of the coast of Georgia, with observations on its geologic features. N. Y. Bartlett & Welford, 1846. 47 p. 2 pl. map.

Includes: COUPER, J. H. On the geology of a part of the sea-coast of Georgia. . . . p. 31–47; & HABERSHAM, J. Memorandum of the most important fossil bones and shells . . . discovered in 1842 . . . on the Island of Skiddaway. . . .

HORTICULTURIST and Journal of rural art and rural taste; ed. by A. J. Downing (1846–52), P. Barry (1853–55), J. Jay Smith (1855–68), Henry T. Williams (1869–75). Albany, N. Y., 1846–75. 30 v.

*LINDHEIMER, Ferdinand. Pflanzen geographische Vebersicht von Texas. (In Archiv für Naturgeschichte. Berlin, 1846. v. 12, pt. 1, p. 277–87)

*LINDLEY, George. A guide to the orchard and fruit garden or, An account of the most valuable fruits cultivated in Great Britain, with additions of all the most valuable fruits cultivated in America . . . a new ed., with an appendix describing many American fruits not mentioned in the former edition . . . N. Y. J. C. Riker, 1846. 11 + 420 p. illus.

*LYELL, Charles. [Papers in Geol. Soc. Lond. Jour. v. 2, 1846] 1) p. 405–10, on the newer deposits of the Southern states of N. A. 2) p. 417–20, on footmarks discovered in the coal-measures of Pa. 3) p. 278–82, coal field of Tuscaloosa, Ala.

Repr. in Amer. J. Sc. (1818), ser. 2, v. 1, p. 371–76. May, 1846.

MACLEOD, Donald. History of Wiskonsan, from its first discovery to the present period, including a geological and topographical description of the territory, with a correct catalogue of all its plants. Buffalo, Steele's press, 1846. xii, 310 p. pl. (map)

Plants, p. 304–10.

OWEN, D. D. On the geology of the western states. (In Geol. Soc. Lond. Proc. v. 4, p. 1–4. 1846)

Also in its Geol. Jour. v. 2, p. 433–37. 1846. Rd before the Society in 1842.

PAGE, David. Rudiments of geology. Phila. 1846. 288 p.

PRINCE, W. R. Prince's manual of roses; comprising the most complete history of the rose, including every class, and all the most admirable varieties that have appeared in Europe and America;

together with ample information on their culture and propagation. N. Y. 1846. 213+50 p.

RIDDELL, J. L. Brief Sketch of the subjects embraced in the science of botany, with its relation to medicine and some of the inducements for engaging in its study. (In New Orleans Med. & Surg. Jour. v. 2, p. 445–49. 1846)

RUSCHENBERGER, W. S. W. . . . Elements of geology, prepared for the use of schools and colleges . . . from the text of Beudant, Milne-Edwards and Achille Comté. Phila., Grigg & Elliott, 1846. 235 p. illus. pl. front. (In his First books of natural history. v. [8])

SCHOOLCRAFT, H. R. Notes on the Iroquois: or, Contributions to the statistics, aboriginal history, antiquities and general ethnology of western New York. N. Y., Bartlett & Welford, 1846. viii, 285 p. [1]. illus.

Another ed. Albany, Pease & Co., 1847. xiv, [1], 498 p. 2 col. port.

SHUMARD, B. F. Catalogue of the fluviatile shells of the family of Naiades of Jefferson County, Ky. (In Naturalist & Jour. Agric. 1846. v. 1, p.)

STRONG, A. B. The Illustrated natural history; containing scientific and popular descriptions of quadrupeds, birds, fishes, reptiles, insects . . . N. Y. 1846–50. 4 v. illus. 144 pl. new ed., 1855.

SULLIVANT, W. S., and GRAY, Asa. Musci Alleghaniensis, sive enumeratio muscorum atque hepaticorum quos in itinere a Marylandia usque ad Georgiam par tractus montium A. D. 1843; decerpserunt Asa Gray et W. S. Sullivant . . . Columbus, 1846. 87 p.

Rev. by Asa Gray in Amer. J. Sc. v. 51, p. 70–81. Jan. 1846.

THOMAS, J. J. The American fruit culturist, containing directions for the propagation and culture of the fruit trees in the nursery, orchard and garden, with descriptions of the principal American and foreign varieties cultivated in the United States. Auburn, N. Y., 1846. 410 p. illus.

TREMPER, J. Synopsis of natural history. Geneva, N. Y., 1846. 16 p.

WILLIAMS, S. W. Indigenous medical botany. (In N. J. Jour. Med. v. 6, p. 368; v. 7, p. 33, 175, 321; v. 8, p. 94. 1846–47)

1847 ADAMS, C. B. Catalogue of the genera and species of recent shells in the collection of C. B. Adams. Middlebury, Vt., 1847. 32 p.

AGASSIZ, Louis. An introduction to the study of natural history in a series of lectures delivered in the hall of the College of Physicians and Surgeons, N. Y. . . . N. Y., Greeley & McElrath, 1847. 58 p. illus.

ALLEN, John Fisk. The culture of the grape, embracing directions for the treatment of the vine, in the northern states of America, in the open air, and under glass structures, with and without artificial heat. Bost. Dutton & Wentworth, 1847. 55 p.

Other ed., 1848 & 1853.

*BARHAM, William. Descriptions of Niagara, selected from various travellers, with original additions. Gravesend, Houlston, [1847]. 180 p. 2 pl.

BROOKS, Charles. Elementary course of natural history; being an introduction to zoology . . . elements of ornithology. Bost. Munroe & co., 1847. 324 p. illus.

Rev. in North Amer. Rev. v. 65, p. 261–62. July, 1847.

CARSON, Joseph. Illustrations of medical botany: consisting of coloured figures of the plants affording the important articles of the materia medica. Phila. R. P. Smith, 1847. 2 v. 100 col. pl. 4°.

15 + 740 + 30 p. [in 5 pts.]

COMSTOCK, J. L. Elements of geology, including fossil botany and palaeontology, a popular treatise on the most interesting parts of the science . . . N. Y. Pratt, Woodford & co., 1847. 432 p. illus.

Other ed., 1852 & 1853.

————. The flora belle; or, Gems from nature . . . N. Y. T. L. Magagnos [1847?] 352 p. 8 col. pl.

DARLINGTON, William. Agricultural botany: an enumeration and description of useful plants and weeds, which merit the notice, or require the attention of American agriculturists. Phila. J. W. Moore, 1847. 58 + 270 p.

Revised, with additions by George THURBER. N. Y. Moore & co., 1859. 16 + 460 p. illus.; entitled "American weeds & useful plants." 1st ed. rev. in Amer. J. Sc. v. 54, p. 451–52. Nov. 1847; 2d rev. in v. 77, p. 437–38. May, 1859.

————. A discourse upon agriculture: at a meeting of the citizens of Oxford, and vicinity, Chester County, Penna., assembled for the purpose of forming an agricultural society, Sept. 4, 1847. [Oxford, Pa.], 1847. 16 p.

DILLINGHAM, W. H. An address delivered before the Chester County Horticultural Society, at West Chester, Pa., September 10, 1847 . . . with the transactions of the Society. Phila. 1847. 48 p.

FEATHERSTONAUGH, G. W. A canoe voyage up the Minnay Sotor; with an account of the lead and copper deposits in Wisconsin; of the gold region in the Cherokee country; and sketches of

popular manners . . . London, R. Bentley, 1847. 2 v. illus. front. 2 fold. maps.

v. 1, xiv, 416 p. pl. maps; v. 2, viii, 351 p.

*GEYER, C. A. Beobachtungen über die gemeinen Klapperschlange Nord-Amerikas, mit dem Beinamen "der Schrecklichen" (Crotalus horridus Shaw, Cuvier; C. Durissus, Daudin. (In Allgemeine Deutsch. Nat. Hist. Zeitung. v. 2, p. 374–86. 1847)

GIPPERICH, Frederick. Report on the gold mines of the Philadelphia and North Carolina Mining and Smelting Co. Phila. J. H. Schwacke, 1847. 17 p. map.

GRIFFITH, R. E. Medical botany; or, Descriptions of the more important plants used in medicine, with their history, properties, and mode of administration. Phila. Lea & Blanchard, 1847. xv, [17]–104 p. illus.

Rev. in Southern Jour. Med. & Pharm. v. 2, p. 555–63. 1847; & in Amer. J. Sc. v. 54, p. 147. July, 1847.

HOLBROOK, J. E. Southern ichthyology; or, A description of the fishes inhabiting the waters of South Carolina, Georgia and Florida, no. 2. N. Y. Wiley & Putnam, 1847. 32 p. 4 col. pl. 4°.

*HOOKER, W. J., and *GEYER, C. A. Catalogue of Mr Geyer's collection of plants gathered in the Upper Missouri, the Oregon territory and the Rocky Mountains. (In Lond. Jour. Bot. v. 6, p. 65–79, 206–56, 458–59, 1847)

Cont. in Hooker's Kew Jour. Bot. 1851. p. 287–300; 1853, p. 257–65; 1855, p. 371–78; 1856, p. 16–19)

HORTICULTURIST and journal of rural art and rural taste . . . Devoted to horticulture, landscape gardening, rural architecture . . . pomology, floriculture . . . N. Y. [1847]–75. 30 v.

Published monthly. Edited by A. J. Downing.

KOCH, A. C. Reise durch einen Theil der Vereinigten Staaten von Nord Amerika in den Jahren 1844 bis 1846. Dresden & Leipzig, Arnold, 1847. 162 p. illus. 2 pl.

*LYELL, Charles. On the structure and probable age of the coal-field of the James River, near Richmond, Va. (In Geol. Soc. Lond. Jour. v. 3, p. 261–80. 1847)

McMURTRIE, Henry. Lexicon scientarum—a dictionary of the terms used in the various branches of anatomy, astronomy, botany, geology, geometry, hygiene, mineralogy, natural philosophy, physiology, zoology . . . Phila., Biddle, 1847. 264 p.

2d ed. 1849; 3d ed. 1860.

NEWMAN, John B. Boudoir botany; or, The parlor book of flowers, comprising the history, description, and coloured engrav-

ings of twenty-four exotic flowers, twenty-four wild flowers of America, and twelve trees with fruits; with an introduction to the science of botany. N. Y., Harper, 1847. 296 p.

OHIO NURSERYMEN, and Fruit Growers' Convention. Transactions. Columbus, Ohio, 1847–49. v. 1–3.

Cont. as Ohio Pomological Society. Report. v. 4–14. 1852–66.

OWEN, D. D., and NORWOOD J. G. Researches among the Protozoic and Carboniferous rocks of Central Kentucky; made during the summer of 1846. St. Louis, 1847. 12 p. pl.

PARRY, C. C. Review of some botanical observations, made principally in the vicinity of Davenport and Rock Island. (In Davenport Gazette. Oct. 14, 1847)

PORCHER, F. P. Medico-botanical catalogue of the plants and ferns of St. John's, Berkley, S. C.; an inaugural thesis submitted to the dean and faculty of the Medical College of the state of South Carolina, for the degree of M.D. Charleston, S. C., Printed by Burges & James, 1847. 55 p.

Extracts in Southern Jour. Med. & Pharm. Charleston, S. C., 1847. v. 2, p. 255, 397.

TILDEN, B. P., Jr. Notes on the upper Rio Grande explored in the months of October and November, 1846, on board the U. S. S. Major Brown, commanded by Mark Sterling of Pittsburgh . . . Phila. 1847. 32 p. maps.

U. S. EXPLORING EXPEDITION. Memorial of officers of the Exploring Expedition to the Congress of the United States. Wash. 1847. 23 p.

See also WILKES U. S. EXPLOR. EXPED. (1838)

YANDELL, L. P., and SHUMARD, B. F. Contributions to the geology of Kentucky. Louisville, Prentice & Weisinger, 1847. 36 p. pl.

1848 AGASSIZ, Louis, and GOULD, A. A. Principles of zoölogy; touching the structure, development, distribution, and natural arrangement of the races of animals, living and extinct with numerous illustrations . . . for the use of schools and colleges: part 1: Comparative physiology. Bost., Gould, Kendall & Lincoln, 1848. 2 p. l, xix, 216 p. illus. pl. front. map.

Rev. in Amer. J. Sc. ser. 2, v. 6, p. 151–52. July, 1848.

Another ed. 1851. 250 p. illus. pl. map. Also 1856 ed. and subsequent ones.

Revised ed., entitled: Outlines of comparative physiology, touching the structure and development of the races of animals living and extinct; ed. from the rev. ed. and greatly enlarged by Thomas Wright. London, Bohn, 1855. 24, 442 p. illus. pl. map.

Another ed. Lond. G. Bell, 1878.

AGASSIZ, Louis, and *STRICKLAND, H. E. Bibliographia zoologiae et geologiae: a general catalogue of all books, tracts and

memoirs on zoology and geology, by Louis Agassiz; corrected and enlarged and edited by H. E. Strickland. London, Ray Society, 1848–54. 4 v.

Rev. in Amer. J. Sc. ser. 2, v. 7, p. 454–55. May, 1849. See ANNOTATED BIBLIOGRAPHY (v. 1, p. 31)

ANON. The economy and habits of plants. (In Western Jour. & Civilian. St. Louis, 1848. v. 1, p. 10–25)

ANON. On the geology of the valley of the Mississippi. (In Western Jour. & Civilian. St. Louis, 1848. v. 1, p. 243–52)

BRYANT, Edwin. What I saw in California; being the journal of a tour by the emigrant route and south pass of the Rocky Mountains across the continent of North America, in the years 1846, 1847 . . . N. Y. Appleton, 1848. 455 p.

Other ed. See SABIN, v. 3, p. 64–5.

CARSON, Joseph. On black hellbore (Helleborus niger). (In Amer. Jour. Pharm. v. 20, (n. s. v. 14), p. 161–69. 1848)

On Quassia amara, Linnaeus. p. 257–60, pl.

CHRISTY, David. Letters on geology: being a series of communications originally addressed to Dr John Locke, of Cincinnati, giving an outline of the geology of the west and southwest, together with an essay on the erratic rocks of North America, addressed to M. De Verneuil, illustrated by geological sections and engravings of some rare fossils. Rossville, J. H. Christy, printer, 1848. 68, [2] + 11 p. 5 pl.

Rev. in Amer. J. Sc. ser. 2, v. 6, p. 298–99. Sept. 1848.

COMSTOCK, J. L. Natural history of the birds . . . exhibiting their comparative size; adapted to the capacities of youth, with authentic anecdotes, illustrating their habits, and characters, together with reflections, moral and religious, designed for Sabbath school libraries, families and common schools. N. Y., Pratt, Woodford & co., 1848. 81 p. illus. front.

DANA, J. D. Manual of mineralogy, including observations on mines, rocks, reduction of ores, and the applications of the science to the arts . . . designed for the use of schools and colleges. New Haven, Currie & Peck; Phila., H. C. Peck, 1848 (1849). xii, [13]–432 p. illus. diagr. (260 illus.)

2d ed., 1849; 3d ed., 1851; 5th 1853, etc.

Numerous subsequent ed. containing added material.

FOSTER, G. G. The gold mines of California; and also a geographical, topographical and historical view of that country; ed. by . . . N. Y. DeWitt & Davenport, 1848. 80 p. map.

Other editions.

GRAY, Asa, and SULLIVANT, W. S. A manual of the botany of the northern United States, from New England to Wisconsin

and south to Ohio and Pennsylvania inclusive (the mosses and liverworts by W. S. Sullivant) arranged according to the natural system, with an introduction containing a reduction of the genera to the Linnaean artificial classes and orders, outlines of the elements of botany, a glossary, etc. Bost. & Cambridge, J. Munroe & co., 1848. lxxii + 710 p.

The Willows, Poplars and the genus Carex, by John CAREY, p. 535–67. (In 2d ed. p. 507–35)

2d ed. N. Y. G. P. Putnam, 1856. xxviii + 739 p. 14 pl. (Several reprints)

3d ed. N. Y. Ivison & Phinney, 1858. 28 + 739 p. 14 pl. (Several reprints)

3d ed. revised. N. Y. 1862. 98 + 606 + 29 p. 6 pl.

See also Bradley Bibliography. v. 1, p. 314, for a list of editions and the catalogue of the Library of the Arnold Arboretum.

1st ed. rev. in Amer. J. Sc. v. 55, p. 377–80. May, 1848. Also rev. by J. L. Russell in Mag. Hort. & Bot. v. 14, p. 313–19. July 1848. Also rev. in North Amer. Rev. v. 67, p. 174–93, July, 1848. & Also in Amer. J. Sc. v. 55, p. 297–99. Mar. 1848. 2d ed. rev. in Amer. J. Sc. v. 72, p. 437–38. Nov. 1856.

HOLBROOK, Josiah. Geological cabinet, an introduction and aid to books. . . . N. Y. School Exchange, 1848. 16 p. 16°. (Copy seen in Library of Congress)

LEE, C. A. A catalogue of the medicinal plants, indigenous and exotic, growing in the state of New York; with a brief account of their composition and medical properties. N. Y. J. & H. G. Laughley, 1848. 4 + 64 p.

Extracts in N. Y. Jour. Med. v. 9, p. 151, 297, 1847 & v. 10, p. 9, 1848.

OAKES, William, and SPRAGUE, William. Scenery of the White Mountains; with sixteen plates from the drawings of Isaac Sprague. . . Bost. Crosby, Nichols & Co., 1848. 2 p. l. 4 p. 16 pl. 44 cm.

PROUT, H. A. On the economical geology of the state of Missouri. (In Western J. & Civilian. v. 1, p. 6–9, 429–39. St. Louis, 1848)

RODGERS, M. M. Scientific agriculture; or, The elements of chemistry, geology, botany, and meteorology applied to practical agriculture. Rochester, Darrow, N. Y., 1848. 280 p.

SARTWELL, H. P. Carices Americae Septentrionalis exsiccatae: pt. 1–2. Penn. Yann, N. Y., 1848–50.

Rev. in Amer. J. Sc. ser. 2, v. 15, p. 129–31. Jan. 1853.

*SCHEELE, Adolf. Beitrage zum Flora von Texas. (In Linnaea. Berlin & Halle, 1848–52. v. 21, p. 453–72, 576–602, 747–68; v. 22, p. 145–68, 339–52; v. 23, p. 139–46; v. 25, p. 254–65)

*SIEDHOF, Carl. Naturgeschichtliches aus den Vereingten Staaten von Nord america. (In Oken's Isis. v. 41, p. 409–21. 1848)

SMITH, H. L. First lessons in astronomy and geology. Cleveland, 1848.

SMITH, T. B. . . . Report of a committee . . . on a reconnaissance of the Everglades made to the Secretary of the Treasury, June, 1848. Wash. 1848. (In U. S. 30th Cong., 1st sess., Sen. Rept. 242. p. 10–38) Serial no. 512.

SPRAGUE, Isaac, and GRAY, Asa. Genera florae Americae boreali-orientalis illustrata. The genera of the plants of the United States, illustrated by figures and analyses from nature, by Isaac Sprague . . . superintended, and with descriptions by Asa Gray. Bost., J. Munroe & co., N. Y. & Lond., J. Wiley, 1848–49. 2 v. 186 pl.

v. 1, 1848, 230 p. 100 pl.

v. 2, 1849, 230 p. 86 pl.—N. Y. G. P. Putnam.

Rev. in North Amer. Rev. v. 67, p. 174–93. July, 1848 & in Amer. J. Sc. ser. 2, v. 8, p. 452–53. Nov. 1849.

STRONG, A. B. The American flora; or, History of plants and wild flowers, containing a systematic and general description, natural history, chemical and medical properties of over six thousand plants, accompanied with a circumstantial detail of the medicinal effects and of the diseases in which they have been most successfully employed. N. Y. Green & Spencer, 1848–50. 4 v. 240 col. pl. port. 4°. (25 cm.)

Copyrighted in 1845.

Another ed. 1851–53. 4 v.

v. 1, iv, iv, [9]–190, [8] p. 70 col. pl.

v. 2, iv, [5]–192 p. 70 col. pl.

v. 3, vi, [3]–184 p. 66 col. pl.

v. 4, vi, vi, [7]–184 p. 70 col. pl.

TAYLOR, R. C. Statistics of coal: the geographical and geological distribution of mineral combustibles or fossil fuel, including also notices and localities of the various mineral bituminous substances employed in arts and manufactures . . . embracing from official reports of the great coal producing countries, the respective amounts of their production in all parts of the world; together with their prices, tariffs, duties and international regulations. Phila., J. W. Moore, 1848. 148 + 754 p. maps. diagr.

2d ed., revised & enl. and brought down to 1855, by S. S. Haldeman. Phila. 1855. 641 p.

1st ed., rev. in Amer. J. Sc. ser. 2, v. 6, p. 150–51. July, 1848; 2d ed., rev. in ser. 2, v. 20, p. 275–76. Sept. 1855.

THOMPSON, Zadock. Geography and geology of Vermont, with state and county outline maps . . . for the use of schools and

families. Burlington, Vt., pub. by the author, 1848. 3 p. l, [9]–219, [1] p. illus. maps.

VAN AMRINGE, W. F. An investigation of the theories of the natural history of man, by Lawrence, Prichard, and others, founded upon animal analogies; and an outline of a new history of man, founded upon history, anatomy, physiology, and human analogies. N. Y. Baker & Scribner, 1848. 2 p. l, [xi]–xxii, [25]–739 p.

WILLIAMS, S. W. Rattlesnakes–Crotalus horridus. (In Bost. Med. & Surg. Jour. v. 37, p. 449–53. 1848)

YOUNG, Aaron, Jr. A flora of Maine, illustrated with specimens from nature, arranged according to the natural system and containing descriptions of all the known indigenous plants growing in the state, giving their generic and specific characters, principal anonymous places of growth and time of flowering, and occasional remarks. Bangor, Me., S. S. Smith, printer, 1848. 28 p. 28 pl. folio.

Rev. by Asa Gray in Amer. J. Sc. v. 55, p. 453. May, 1848. Young received 750 dollars from the Maine legislature in 1847 for the prosecution of the work which was to have been completed in 20 v.

1849 ADAMS, C. B. Contributions to conchology . . . conducted by . . . N. Y., Baillière, 1849–52. iv, 258 p.

Issued in 12 numbers, Oct. 1849–Nov. 1852. No. 9, by Adams & Edward CHITTY; parts of 11–12, by Thomas BLAND.

AGASSIZ, Louis. Twelve lectures on comparative embryology, delivered before the Lowell Institute, in Boston, December and January, 1848–1849 . . . Bost. Redding & co., 1849. 104 p. illus.

Originally pub. in Boston Daily Evening Traveller. Rev. in Amer. J. Sc. v. 58, p. 156–57. July, 1849.

———— Natural history illustrations prepared under the direction of Louis Agassiz, 1849. . . The anatomy of Astringia Danae, six lithographs from drawings by A. Sonrel; explanation of plates by J. W. Fewkes. . . Wash. [1849]. 20 p. 6 pl. [142 fig.]

Pub. Wash. 1889. Pub. no. 671 of the Smith. Inst.

AGASSIZ, Louis, and BAIRD, S. F. Natural history illustrations prepared under the direction of . . . 1849 . . . six species of North American fresh water fishes . . . plates drawn by A. Sonrel . . . [Wash. 1849.] 12 p. 6 pl. [71 fig.]

Explanation by D. S. Jordan. Pub. by Smith. Inst. 1889. Pub. no. 672.

AMERICAN MEDICAL ASSOCIATION. Report of the committee on indigenous medical botany. Phila. 1849. (In its Trans. v. 2, p. 663, 1849; v. 3, p. 309, 1850; v. 5, p. 689. 1852)

ANON. A description of the Mammoth Cave of Kentucky, the Niagara River and Falls, Mount Vernon, etc., to illustrate Brewer's panorama. Phila. U. S. Job print. off., 1849. 16 p.

*ANSTED, D. T. The gold-seeker's manual; being a practical and instructive guide to all persons emigrating to the newly-discovered gold-regions of California. Lond., Van Voorst & N. Y., Appleton, 1849. 176 p.

BIGELOW, J. M. A list of the medicinal plants of Ohio (not embraced in Wood & Bache's U. S. Dispensatory), containing as far as known, a brief account of their properties. Columbus, 1849. (In Ohio Med. & Surg. Jour. v. 2, p. 97–124)

Pub. separately, Columbus, Riley, 1849. 46 p.

Rev. in Charleston Med. Jour. v. 5, p. 388–89. 1850

CARSON, Joseph. On Quassia excelsa. (In Amer. Jour. Pharm. v. 21, (n. s. v. 15), p. 1–4, pl. 1849)

COLE, S. W. The American fruit book, containing directions for raising, managing fruit trees, shrubs and plants, with a description of the best varieties of fruit including new and valuable kinds . . . Bost., Jewett & N. Y., Saxton, 1849. 288 p. illus. front. 16°.

COMSTOCK, J. L. A history of the precious metals . . . Hartford, Belknap & Hammersley, 1849. 222 p. illus.

COOKE, P. St. G. . . . Official journal of an expedition . . . from Santa Fé to San Diego. . . Wash. 1849. 85 p. (In U. S. Special sess. 1849. Sen. Doc. no. 2) Serial no. 547.

Expedition in the field between Oct. 13, 1846 & Jan. 30, 1847

DARLINGTON, William. Memorials of John Bartram and Humphry Marshall; with notices of their botanical contemporaries. Phila., Lindsay & Blakiston, 1849. 2 p. l, xv, [17]–585 p. illus. pl. front. 2 facsim.

Rev. in North Amer. Rev. v. 70, p. 210–25. Jan. 1850; & in Amer. J. Sc. v. 59, p. 85–105. Jan. 1850.

Progress of botany in North America, p. 17–33. Biog. sketch of Bartram, p. 37–57. Correspondences of J. Bartram with Collinson and others, p. 59–478. Correspondence of H. Marshall, p. 479–585.

GIBBES, R. W. The present earth the remains of a former world; a lecture delivered before the South Carolina Institute, Sept. 6, 1849. Columbia, S. C. A. S. Johnston, 1849. 31 p.

[GOODRICH, S. G.] Peter Parley's illustrations of the vegetable kingdom, trees, plants and shrubs. Hartford, Hawley & co., 1849. 104 + 330 p. illus.

HUGHES, G. W. Memoir descriptive of the march of a division of the United States Army under the command of Brig. Gen. John E. Wool,

from San Antonio de Bexar in Texas, to Saltillo in Mexico . . . 1846. Wash. 1849. 67 p. pl. map. (In U. S. 31st Cong., 1st. sess., Sen. Ex. Doc. no. 32, v. 10) Serial no. 558

Report made Jan. 20, 1849. Journey, Aug.–Dec. 1846. Assisted by L. Sitgreaves, F. T. Bryan, W. B. Franklin.

JAEGER, B[enedict]. Class book of zoology; designed to afford pupils of common schools and academies a knowledge of the animal kingdom, with a list of the different species found in the state of New York; the whole systematically and scientifically arranged. N. Y. 1849. 179 p. 12 mo.

3d ed. 1860.

JAQUES, George. A practical treatise on the management of fruit trees, with descriptive lists of the most valuable of the fruits for general cultivation, adapted to the interior of New England. Worcester, E. N. Tucker, 1849. 256 p.

Another ed. N. Y. E. Livermore, 1856. 256 p. (. . . adopted to the northern states)

LANMAN, Charles. Letters from the Alleghany Mountains. N. Y. Putnam, 1849. 198 p.

LEA, T. G. Catalogue of plants native and naturalized, collected in the vicinity of Cincinnati, Ohio, during 1834–1844. Phila., Collins, 1849. 2 p. l, iv, [5]–77 p.

Prepared from author's MSS by W. S. Sullivant; Fungi written by M. J. Berkeley & Lichens, by Edward Tuckerman.

Rev. in Amer. J. Sc. v. 58, p. 302–3. Sept. 1849, by Asa Gray.

Rev. in Cincinnati Soc. Nat. Hist. Jour. v. 3, p. 240. Jan. 1881.

*LYELL, Charles. A second visit to the United States of North America . . . N. Y., Harper & bros., 1849. 2 v. illus. [273; 287 p.]

Lond. ed., John Murray, 1849. 2 v. [xii, 368 p.; xii, 385, [1] p.]

Rev. in North Amer. Rev. v. 69, p. 325–53. Oct. 1849.

NORFOLK AGRICULTURAL SOCIETY, Norfolk, Mass. Transactions, 1849–75. [Boston, 1849–75]

NOTT, J. C. Two lectures on the connection between the Biblical and physical history of man, delivered by invitation, from the chair of political economy, etc., of the Louisiana University in December, 1848. N. Y. Bartlett & Welford, 1849. 146 p. map.

PORCHER, F. P. On the indigenous medicinal plants of South Carolina. . . . Phila. 1849. (In Amer. Med. Assoc. Trans. v. 2, p. 677–862)

REESE, D. M. . . . Elements of zoology. N. Y. A. S. Barnes & co., 1849. 535 p. (Chamber's educational course)

*ROEMER, Ferdinand. Texas: mit besonderer Rücksicht auf deutsche Auswanderung und die physischen Verhältnisse des Landes nach eigener Beobachtung geschildert. Bonn, A. Marcus, 1849. 14 + 464 p. map.

Botany of Texas, by Adolph SCHEELE. p. 425–49.

*STRACHEY, William. The historie of travaile into Virginia Britannia . . . now first ed. from the original MS. in the British Museum. Lond. 1849. 8 + 36 + [6] + 203 p. illus. pl. map. [Hakluyt Soc.]

See also COUES (1), pt. 1, p. 636.

TALBOT, Theodore. [Lt. U. S. Art.] 1) Diary of Fremont Exped. on the Oregon trail, 1843. 1 v. 2) Diary kept of a voyage from N. Y. to Fort Vancouver and at that place—1848–50. 2 v. 3) Report of exploration of the Alca River, the coast region and the Valley of the Willamette, Oct. 5, 1849. (3) Rept. printed in Tyson's Report on geol. Calif (1849), q. v. MSS in the Library of Congress, MSS Division.

TOWNSEND, J. K. Ornithology of the United States of North America, or descriptions of the Birds inhabiting the states and territories of the Union, with an accurate figure of each drawn from nature, ed. by J. K. T. Phila. J. B. Chevalier, 1849. 12 p. 4 pl.

See COUES (1), pt. 1, p. 636.

WHITE, Gerge. Statistics of the state of Georgia, including a record of its natural, civil, and ecclesiastical history; together with a particular description of each county . . . Savannah, W. T. Williams, 1849. 624 + 77 p.

Natural history included in appx. 77p. Mammalia, by John BACHMAN, p. 1–5; Birds, p. 6–12; Geology, p. 13–27; Flora, by J. L. LE CONTE; p. 43–77. Reptiles & Fishes by J. E. HOLBROOK & L. R. GIBBES.

WILKES, Charles. Western America, including California and Oregon, with maps of those regions and of the Sacramento Valley. Phila. Lea & Blanchard, 1849. 130 p. 3 maps.

WILLIAMS, S. W. Report on the indigenous botany of Massachusetts. (In Amer. Med. Assoc. Trans. v. 2, p. 863–927)

*WOLTERSDORF, A. Einige flüchtige Notizen uber die Vegetation von Texas. (In Allgemeine Gartenzeitung. Sept. 22, 1849. v. 17, p. 298–301)

WYMAN, Jeffries. Twelve lectures on comparative physiology, delivered before the Lowell Institute in Boston, January and February, 1849. Bost. Henry Flanders & Co., 1849. 72 p.

Rev. in Amer. J. Sc. ser. 2, v. 8, p. 157. July, 1849.

1850 AGASSIZ, Louis. The diversity of the origin of human races. 36 p. (In Christian Examiner & religious miscellany. no. 160. July, 1850)

———— The geographical distribution of animals. (In Christian examiner & religious miscellany. no. 258. Mar. 1850. 24 p.)

———— and CABOT, J. E. Lake Superior: its physical character, vegetation, and animals, compared with those of other and similar regions. With a narrative of the tour, by J. Elliott Cabot, and contributions by other scientific gentlemen. Bost., Gould, Kendall & Lincoln, 1850. x, [2], 9–428 p. illus. maps.

Includes chapters by J. L. Le Conte, Coleoptera, p. 201–42; A. A. Gould, Shells, p. 243–45; J. E. Cabot, Birds, p. 383–85; T. W. Harris, Lepidoptera, p. 386–94.

Anon. Notes for the use of persons who seek for and collect shells. Bost. Eastburn's Press, 1850. 14 p.

Anon. Account of Bartram's Botanic Garden. . . (In Horticulturist. v. 5, p. 253–55. Dec. 1850)

Revised & Corr. Phila. 1864. 11 p.

BACHMAN, John. The doctrine of the unity of the human race examined on the principles of science. Charleston, S. C., Canning, 1850. 312 p.

Rev. in Amer. J. Sc. v. 61, p. 302. Mar. 1851.

Barratt, Joseph. Notes on the indigenous plants of Abbeville District, S. C. (In Amer. Med. Assoc. Trans. v. 3, p. 317–21. 1850)

BARRINGTON, A. and BURDETT, Charles. A treatise on physical geography, comprising hydrology, geognosy, geology, meteorology, botany, zoology, and anthropology, by A. Barrington; ed. by Charles Burdett. N. Y., M. H. Newman & co., 1850. 420 p.

Geology, p. 102–69; botany, p. 231–53; zoology, p. 254–93; anthropology, p. 294–407.

Barry, P. Drooping trees. Albany, N. Y. 1850. (In Horticulturist. v. 5, p. 123–26)

Booth, J. C., and Morfitt Campbell. Encyclopaedia of chemistry, practical and theoretical; embracing its application to the arts, metallurgy, mineralogy, geology, medicine and pharmacy. Phila. 1850.

2d ed. 1862.

Browne, D. J. The American bird fancier; considered with reference to the breeding, rearing, feeding . . . of cage and house birds. . . N. Y., C. M. Saxton, 1850. 107 p.

COOPER, Miss (S. M.) Rural hours, by a lady . . . N. Y., Putnam, 1850. 52 p.

Other ed. Repr. Lond. Bentley, 1855. 2 v. in 1, (328 + 306 p.), as "Journal of a Naturalist in the U. S."

Cross, O[sborne]. A report in the form of a journal, to the Quartermaster General, of the march of the regiment of mounted riflemen to Oregon, from May 18 to October 5, 1849. . . Wash. 1850. (In U. S.

31st Cong. 2d sess. Sen. Ex. Doc. v. 1, no. 1, p. [126]–244, 29 pl.) Serial no. 587.

[DUNBAR, G. P. Ichthyological papers . . . 1850.] (In Amer. Naturalist. v. 16, p. 381–88. 2882)

Posthumous papers, ed. by J. L. Wortman. Most of Dunbar's papers were destroyed in a fire in 1850.

DURANT, C. F. Algae and corallines of the Bay and Harbor of New York, illustrated with natural types. N. Y., G. P. Putnam, 1850. 43 p. illus. 40 pl. 4°.

Only 50 copies printed, furnished with mounted specimens.

See Hollick, Arthur. A quaint old work on seaweeds. (In Staten Island Assoc. A. & Sc. Proc. v. 5, pt. 3–4, p. 85–91. 1915). See also Science. n. s. v. 65, p. 472–73. May 13, 1927 (A. P. Kelley). Copies at Bklyn Botanic Garden, N. Y. Public Library, Rutgers University, & N. Y. Botanical Garden.

Durant's scrapbooks are in N. Y. Public Library.

*EHRENBERG, C. G. Uber das mächtigste bis jetzt bekannt gewordene (angeblich 500 Fuss mächtige) Lager von mikroskopischen reinen kieselschaligen Süsswasser Formen am Wasserfall Flusse in Oregon; 2) Uber das mikroskopische Leben in Texas. (In König. Preuss. Akad. Wissen. zu Berlin. Berlin, 1850. Bericht, für 1849. p. 76–87; 87–91.)

For contents, see MARCOU, p. 229.

FOSTER, J. W. Introduction to the study of geology, together with a key to Foster's geological chart. Albany, 1850. 144 p.

GIBBES, L. R. On the carcinological collections of the Cabinet of natural history in the United States; with an examination of the species contained therein, and descriptions of new species. Charleston, S. C. 1850.

HOOPER, John. Introduction to algology; with a catalogue of American algae, or sea-weeds, according to the latest classification of Prof. Harvey. Brooklyn, 1850. 34 p.

HORTICULTURAL REVIEW and BOTANICAL MAGAZINE. . . Cincinnati, Oct. 1850–Dec. 1854. 4 v.

Ed. by J. A. WARDER. v. 1–3 known as Western Horticultural Review.

IVES, E. Experience on the virtue of certain plants. Phila., 1850. In Amer. Med. Assoc. Trans. v. 3, p. 311–16)

LEA, Isaac, and LEA, H. C. Description of a new genus of the family Melaniana, and of many new species of the genus Melania, chiefly collected by Hugh Cuming, Esq., during his zoological voyage in the East, and now first described. (In Zool. Soc. London. Proc. v. 18, p. 179–97. 1850)

For contents of this & following item, see U. S. Nat. Mus. Bull. no. 23. Wash. 1885. p. 51–3. (N. P. Scudder)

LEA, Isaac. Descrpition of five new species of Anodontae, collected by H. Cuming, Esq., in the East Indies. (In Zool. Soc. London. Proc. v. 18, p. 197–99. 1850)

LEA, J. Cholera, with reference to the geological theory. Cincinnati, Wright, 1850. 25 p.

MÖLLHAUSEN, Baldwin. Die in Texas und Virginien gelegenen, der Londoner allgemeinen Auswanderungs und Colonisations gesellschaft gebörigen Laüderein. . . Berlin, Schneider, 1850. 55 p. 2 maps.

MOORE, D. D. T., ed. Moore's Rural New Yorker. N. Y. & Rochester, 1850–79. 35 v. illus. 4°.

REDFIELD, J. H. Catalogue of operculated shells in the collection of . . . N. Y. 1850. 4 p.

RUSCHENBERGER, W. S. W. A lexicon of terms used in natural history . . . Phila., Lippincott, Grambo & co., 1850. 161 p.
Repr. in his "Elements of natural history," 1860 (q.v.)

SMYTH, Thomas. The unity of the human races proved to be the doctrine of Scripture, reason and science, with a review of the present position and theory of Prof. Agassiz. N. Y., G. P. Putnam, 1850. 404 p.
Rev. in Amer. J. Sc. ser. 2, v. 10, p. 143. July, 1850.

TAYLOR, R. C., and HAYES, J. L. Reports on the Woodville gold mine. Wash. 1850. 15 p.

TROOST, Gerard. Monograph of Crinoids discovered in the state of Tennessee. 1850.
Ready for publication in 1850. See Wood, Elvira. A critical summary of Troost's unpublished manuscript on the 'Crinoids of Tennessee.' Wash. 1909. 150 p. 15 pl. 176 fig. (In U. S. Nat. Mus. Bull. no. 64). See also Amer. Geol. v. 35, p. 72–94. 1905.

WESTERN HORTICULTURAL REVIEW, ed. by J. A. Warder. Cincinnati, 1850–53. v. 1–3.
Cont. as Horticultural Review & Botanical Magazine. 1854. v. 4.

WOODS, S. Report relative to the expedition to the Pembina settlement, and the condition of affairs on the northwestern frontier of the territory of Minnesota. Wash. 1850. 55p. (In U. S. 31st Cong., 1st sess., v. 8, no. 51) Serial no. 577.
Report made Nov. 10, 1849. Expedition took place between June and Sept. 1849.

1851 [BARRATT, Joseph] The Indian of New England, and the northeastern provinces; a sketch of the life of an Indian hunter, ancient traditions relating to the Etchemin tribe, their modes of fishing, hunting. . . with vocabularies in the Indian and English, giving the names of the animals, birds and fish . . . derived from Nicola Tenesles. . . Middletown, Conn., C. H. Pelton, printer, 1851. 24 p. 2 other editions, 1851.

[BAIRD, S. F.] ed. Outlines of general zoology . . . from the Iconographic Encyclopaedia of science, literature, and art. N. Y., R. Garrigue, 1851. 2 p. l., [ix]–xxi, 502, xvi p.

Contents: Mammals, by Charles Girard; Birds, by John Cassin; Reptiles, by S. F. Baird; Invertebrates by S. S. Haldeman & Fishes, by S. F. Baird.

BARRY, P. The fruit garden: a treatise intended to explain and illustrate the physiology of fruit trees, the theory and practice of all operations connected with the propagation, transplanting, pruning and training of orchard and garden, trees . . . N. Y., 1851. 398 p. illus.

BINNEY, Amos, and GOULD, A. A. The terrestrial air-breathing Mollusks of the United States, and the adjacent territories of North America; described and illustrated by Amos Binney; ed. by A. A. Gould. Bost., Little & Brown, 1851–78. 5 v. illus. 296 pl. (88 col.)

v. 1, xxix, [9–266] p. 16 pl.; v. 2, 1851, 362 p.; v. 1857. 40 p. 74 pl.

v. 4, 1859, viii, 207, p. 75–80, ed. by W. G. Binney; v. 5, 1878.

v. 1 & 2 rev. in Amer. J. Sc. v. 62, p. 450. Nov. 1851.

v. 4, repr. from Bost. Soc. Nat. Hist. Jour. v. 7. 201 p. 6 pl.

v. 5, repr. from Mus. Comp. Zool. Bull. v. 4, 1878. 4+439 p. 74+16 pl.

v. 1, p. 198–248, by Joseph LEIDY, on Special anatomy of Terrestrial Gasteropoda of the U. S.

BRECK, Joseph. The flower-garden; or, Breck's book of flowers, in which are described all the various hardy, herbaceous perennials, annuals, shrubbery plants, and evergreen trees, desirable for ornamental purposes, with directions for their cultivation. Bost., Jewett & co., 1851. 12+336 p.

2d ed. 1856.

BROCKLESBY, John. Views of the microscopic world; designed for general reading and as a hand-book for classes in natural science. N. Y., Pratt, Woodford & co., 1851. 146 p. illus. pl.

CLINGMAN, T. L. Geography, topography, and hydrography of North Carolina—soil, products, resources . . . geology. . . (In De Bow's Review. v. 11, p. 105–22. 1851)

DILLINGHAM, W. H. A tribute to the memory of Peter Collinson, with some notice of Dr. Darlington's "Memorials of John Bartram and Humphrey Marshall" (1849), Philadelphia, W. Mitchell, 1851. 37 p.

2d ed. 1852. 48 p. First appeared in Princeton Rev. & Biblical Repertory for July, 1851.

DURKEE, Silas. Massachusetts Algae. Bost., 1851. 2 v. 4°.

Algae, 378 specimens belonging to more than a hundred species, col-

lected by twelve different naturalists, from 62 habitats, in all parts of the world, mounted on paper. Bost. Public Library. Index to Cat. 1866. p. 161.

See also a note in Canad. Nat. & Geol. v. 5, p. 328. 1860.

GOULD, A. A., ed. The naturalist's library; containing scientific and popular descriptions of man, quadrupeds, birds, fishes, reptiles and insects; compiled from the works of Cuvier, Griffith and Richardson . . . and other writers on natural history arranged according to the classification of Stark; ed. by A. A. Gould. Bost., Phillips, Sampson & co., 1851. 880 p. illus.

HALL, James. A chart giving an ideal section of the successive geological formations with an actual geological section, from the Atlantic to the Pacific Ocean, the whole illustrated by the characteristic fossils of each formation. Albany, R. H. Pease, 1851. 144 x 177 cm. fold. to 30 x 30.5 cm.

Rev. in Amer. J. Sc. v. 62, p. 150–51. July, 1851.

For Key to chart, see HALL, under (1852).

HOLBROOK, Josiah. Agricultural geology. Baltimore, F. Lucas, Jr. [1851]. 36 p. 16°. (Copy seen in Library of Congress)

JOHNSON, W. R. Report on the coal lands of the Deep River Mining & Transportation Co., in Chatham & Moore Counties, N. C., with analyses of minerals. Albany, Weed, Parsons & Co., 1851. 39 p. pl. maps.

KILPATRICK, A. R. Historical and statistical collection of Louisiana, the parish of Concordia, botany and natural history of Louisiana. (In De Bow Rev. v. 11, p. 40–62. 1851)

LEA, Isaac, and LEA, H. C. Description of a new genus of the family Melaniana, and of many new species of the genus Melania chiefly collected by Hugh Cuming, Esq., . . . also descriptions of five new species of Anodontae, collected by Cuming in the West Indies. Lond., Taylor, 1851. 179 + 99 p.

NOLL, H. R. Flora of Pennsylvania and botanist's pocket-manual, comprising a glossary of botanical terms, analytical tables, and the natural orders . . . Phila., Lippincott, Grambo. lvi, 466 p.

p. xiii–xxiv incorrectly numbered 109–20 (L. C.) Also pub. at Lewisburg, Pa. O. N. Worden, 1851.

RAUCH, J. H. The medical and economical botany of Iowa. Keokuk, 1851. (In Iowa Med. & Chirurgical Soc. Proc. 1851. p. 11–53)

REDFIELD, J. H. Catalogue of the Marginellidae in the collection of. . . . Jan. 1, 1851.

RIDDELL, J. L. Selected items of observation in referring chiefly to the living microscopic organisms, that abound in the waters of New Orleans, and its vicinity, embracing also some matters pertaining to microscopic anatomy . . . New Orleans, 1851.

ROBERTS, W. F., and STRONG, H. K. Geological report on the Dauphin and Susquehannah Coal Company's mineral lands in Dauphin and Lebanon Counties, Pa. N. Y. 1851.

SCHOOLCRAFT, H. R. Historical and statistical information, respecting the history, condition, and prospects of the Indian tribes of the United States; collected and prepared under the direction of the Bureau of Indian Affairs . . . Phila., Lippincott, Grambo & co., 1851–57. 6 v. illus. pl. port. maps.

For collation, see SABIN, v. 19, p. 56, 58.

Illustrated by S. Eastman.

———— A memoir on the history and physical geography of Minnesota. St. Paul, 1851. (In Minnesota Hist. Soc. Annals. no. 2, p. 144–57)

Repr. in its Coll. v. 1, p. 108–32. 1872.

*SEEMANN, Berthold. Die Volksnamen der Amerikanischen Pflanzen. Hannover, 1851. 6 + 54 p.

Text in English and German.

SMITH, C. H. The natûral history of the human species. . . Bost. 1851.

STIMPSON, William. Shells of New England; a revision of the synonomy of the testaceous Mollusks of New England, with notes on their structure and their geographical and bathymetrical distribution. . . Bost. Phillips, Sampson, 1851. 58 p. 2 pl.

Rev. in Amer. J. Sc. ser. 2, v. 13, p. 150. Jan. 1852

WHIPPLE, A. W. Report . . . of an expedition from San Diego to the Colorado. Wash. 1851. 28 p. (In U. S. 31st Cong., 2d sess., Ex. Doc. v. 3, no. 19) Serial no. 589.

Journey took place during period between Sept. 11 & Dec. 11, 1849.

WYTHE, J. H. The microscopist; or, A complete manual on the use of the microscope . . . Phila., 1851. 191 p. illus.

Rev. in Amer. J. Sc. ser. 2, v. 12, p. 452. Nov. 1851.

1852 ADAMS, C. B. Catalogue of shells collected at Panama, with notes of their synonomy, station and geographical distribution. N. Y. Privately printed, 1852. 342 p.

AGASSIZ, Louis. Report on the examination of the Florida reefs, keys and coast. Wash. 1852. (In U. S. Coast Surv. Rept. for 1851. p. 145–60)

Repr. in Rept. for 1866. p. 120–30.

ALLEN, E. A. H. Notes on lectures on botany and geology . . . Troy, N. Y., 1852.

For use of Rensselaer Institute Summer School.

ANON. A description of Weyer's Cave, in Augusta Co., Virginia. 1852, 11 p.

Copy examined, is in N. Y. Public Library.

AUDUBON, John Woodhouse. Illustrated notes of an expedition through Mexico and California. N. Y. 1852. p. 1–48, 4 pl. col.

Repr. Tarrytown, N. Y., 1915. p. 1–83, 4 col. pl. 1 (incl. front) in Mag. Hist., with Notes & Queries, extra no. 41. Repr. as "Audubon's Western Journal: 1849–50." Cleveland, 1906. 250 p. port. map. Biogr. Memoir by Maria R. Audubon; ed. by F. H. Hodder.

BARNARD, J. G., and WILLIAMS, J. J. The Isthmus of Tehuantepec: being the results of a survey for a railroad to connect the Atlantic and Pacific Oceans, made by the Scientific Commission, under the direction of Major J. G. Barnard, with a resume of the geology, climate, local geography, productive industry, fauna and flora, of that region, arranged and prepared for the Tehuantepec Railroad Company of New Orleans, by J. J. Williams. N. Y., Appleton, 1852. 295 p. illus. pl. charts. atlas of maps.

*BOIS DUVAL, J. A. Lépidopteres de la Californie. Paris, 1852. (In Soc. Ent. Annales. v. 10, p. 275–324)

BRINCKLE, W. D. Remarks on entomology, chiefly in reference to an agricultural benefit. Phila. 1852.

CASSIN, John, and STEVENS, H. L. Illustrations of the Birds of California, Texas, and British and Russian America, intended to comprise all the species of North America, except Mexico . . . and to serve as a supplement to the octavo edition of Audubon's "Birds of America." Phila. King & Baird, printers, 1852.

See W. J. Fox. in Auk. v. 18, p. 291–92. July, 1901.

CLAPP, Asahel. A synopsis, or systematic catalogue of the . . . medicinal plants of the United States. Phila., T. K. & P. G. Collins, 1852. 222 p. + [1] p.

Presented to Amer. Med. Assoc. May, 1852. In its Trans. v. 5, p. 689–906. 1852.

CLARK, W. S. On metallic meteorites; an inaugural dissertation. Gottingen, 1852. 77 p.

Rev. in Amer. J. Sc. ser. 2, v. 15, p. 7–22. 1853.

DENNING, W. H. Great variety of native woods. Albany, 1852. (In Horticulturist. v. 7, p. 263–65)

DENNY, A. Report on the indigenous botany of Clark County, Alabama. Mobile, 1852. (In Med. Assoc. Alabama. Proc. for 1851. p. 41–69)

FARNHAM, T. J. Pictorial edition. . . . Life, adventures, and travels in California. N. Y. Cornish, Lampert & Co., 1852.

See also Fisher, W. K. in Condor. v. 9, p. 57–8. Mar. 1907.

For other editions and other titles by this author, see SABIN, v. 6, p. 362–63.

FOSTER, J. W., and WHITNEY, J. D. Description of the lands and mines of the great Western Copper Mining Co., of Lake Superior . . . reports and maps. . . N. Y. Pudney & Russell, 1852. 47 p.

HALL, James. Key to a chart of the successive geological formations with an actual section from the Atlantic to the Pacific Ocean, illustrated by the characteristic fossils of each formation. Bost. Gould & Lincoln 1852. 72 p.

See under HALL, (1851), for the Chart

HITCHCOCK, Edward. The religion of geology and its connected sciences. Bost., Phillips, Sampson & co., 1852. 16 + 511 p. col. pl.

Other ed., 1854 & 1857.

KILPATRICK, A. R. Historical and statistical collections of Louisiana, the parish of Catahoula, the early settlement, present condition, and natural resources, antiquities, botany, geology, mineralogy, etc., of northern Louisiana. (In De Bow's Review. v. 12, p. 256–75. 1852)

Cont. on p. 631–46.

KNEELAND, Samuel, Jr. On the skeleton of the Great Chimpanzee, Troglodytes gorilla. (In Annals & Mag. Nat. Hist. ser. 2, v. 10, p. 23–30. July, 1852)

*KOCH, C. L. The mineral regions of the upper peninsula of Michigan on Lake Superior and Isle Royale. . . Göttingen, 1852. map.

Rev. in Mining Mag. v. 1, p. 261–68. Sept. 1853.

LOOMIS, J. R. The elements of geology; adapted to the use of schools and colleges. Bost., Gould & Lincoln, 1852. 198 p. illus. pl. diagr.

NEWMAN, J. B. Natural history of man . . . N. Y., 1852. 236 p.

NOLL, H. R. The botanical class-book, and flora of Pennsylvania, designed for seminaries of learning and private classes . . . Lewisburgh, Pa., O. N. Worden, 1852. vi, [7]–158, 452 p. illus.

RAVENEL, H. W. Fungi Caroliniana Exsicatti; fungi of Carolina illustrated by natural specimens of the species . . . Charleston, Russell & Jones, 1852–60. 5 pts. col. pl. 4°.

Rev. in Amer. J. Sc. v. 81, p. 130–31. Jan. 1861.

RIDDELL, J. L. Catalogus florae ludovicianae. (In New Orleans Med. & Surg. Jour. v. 8, p. 743–64. 1852)

Includes observations made by Josiah HALE, W. M. CARPENTER, & RIDDELL over a period of years.

*ROEMER, Ferdinand. Die Kreidebildungen von Texas und ihre organischen Einschlüsse, mit einer Beschreibung von Versteinerungen aus paläozoischen und tertiären Schichten enthaltenden Anhange. Bonn, A. Marcus, 1852. viii, 100 p. map. 11 pl. 4°.

Abstract in Amer. J. Sc. v. 67, p. 150–51. Jan. 1854.

ST. JOHN, Samuel. Elements of geology, intended for the use of students. N. Y., G. P. Putnam, 1852. 16 + 334 p. illus.

SMITH, S. P. Report on the indigenous botany of Prattville. (In Med. Assoc. Alabama. Proc. for 1851. Mobile, 1852. p. 77–83)

TERRILL, G. F. Report of the committee on the indigenous medicinal botany of Virginia. (In Stethoscope & Virginia Med. Gaz. Richmond, 1852. v. 2, p. 475–86)

WARREN, J. C. Description of the skeleton of the Mastodon Giganteus of North America. Bost., John Wilson & son, 1852. 270 p. 30 pl.

2d ed. Bost. 1855. 260 p. 31 pl. Rev. in Amer. J. Sc. v. 64, p. 454. Nov. 1852.

WYTHE, J. H. Curiosities of the microscope; or, Illustrations of the minute parts of Creation, adapted to the capacity of the young . . . Phila., Lindsay & Blakiston, 1852. 132 p.

1853 AGASSIZ, Louis. Circular, with directions for collecting fishes and other objects of natural history. Cambridge, Mass., 1853. 3 p.

BATES, F. A. Indigenous botany of Ferry County, Mobile, Ala., 1853. (In Med. Assoc. Alabama. Proc. for 1852. p. 58–68)

BICKLEY, G. W. L. Principles of scientific botany: being a concise treatise on structural and systematical botanical science, as adapted by modern botanists, simplified and carefully arranged for the use of colleges and private students. Cincinnati, H. W. Derby, 1853. 209 p. illus. col. pl.

BLAKE, J. L. A family text-book for the country; or, The farmer at home; being a cyclopaedia of the more important topics in modern agriculture, and in natural history and domestic economy, adapted to rural life. N. Y., C. M. Saxton, 1853. 475 p. illus.

Another ed. N. Y. A. O. Moore, 1853. 475 p.

BURNETT, W. I. The cell: its physiology, pathology, and philosophy; as deduced from original investigations to which are added its history and criticism. (In Amer. Med. Assoc. Trans. v. 6, p. 645–832. 1853)

Rev. in Amer. J. Sc. ser. 2, v. 18, p. 259–61. Sept. 1854.

COMSTOCK, J. L. Readings in zoology: designed for the use of institutions of learning, and for the general reader. N. Y. Newman & Ivison, 1853. unpaged.

Pt. 1, Mammalia & birds. No more published.

COULTAS, Harland. The principles of botany, as exemplified in the Cryptogamia, for the use of schools and colleges. Phila. Lindsay & Blakiston, 1853. xi, 11, [15]–94 p. illus.

COUNTRY GENTLEMAN, a journal for the farm, the garden and the fireside, devoted to improvement in rural affairs . . . Albany, 1853–65. 26 v.

*CURTIS, M. A., and *BERKELEY, M. J. Centuries of North American fungi. (In Annals Nat. Hist. ser. 2, v. 12, p. 417–35. 1853; & ser. 3, v. 4, p. 284–96. 1859)

DOWLER, Bennett. Tableaux, geographical, commercial, geological, and sanitary, of New Orleans. . . New Orleans, [1853]. 40 p.

DOWNING, A. J. Rural essays . . . ed. with a memoir by G. W. Curtis, and a letter to his friends, by Frederika Bremer. N. Y., Putnam, 1853. 71+557 p. illus. pl. plans.

Another ed. 1854.

FORSHEY, C. G. Louisiana: geology and topography. New Orleans, 1853. (In his Industrial resources, southern and western states. v. 1, p. 436)

GOOD, P. P. A materia medica animalia, containing the scientific analysis, natural history, and chemical and medical properties and uses of the substances that are the products of beasts, birds, fishes, or insects, illustrated by colored engravings of original drawings copied from nature . . . Cambridge, Pub. by author, 1853. [277 p.] 24 col. pl.

See Weiss, H. B. Amer. Collector. v. 4, p. 171–76, pl. Aug. 1927.

GOULD, A. A. A system of natural history, containing scientific and popular descriptions of various animals. Bost. 1853.

GRAY, Alonzo, and ADAMS, C. B. Elements of geology. N. Y., Harper, 1853. xv, 354 p. illus.

Rev. in Amer. J. Sc. ser. 2, v. 15, p. 465. May, 1853.

HALE, Josiah. Report on the medical botany of the state of Louisiana. (In New Orleans Med. & Surg. J. v. 9, p. 152, 287. 1853)

HITCHCOCK, Edward. Outline of the geology of the globe, and of the United States in particular, with two geological maps, and sketches of characteristic American fossils. Bost. & Amherst, 1853. 136 p. 6 pl. maps.

2d ed. Bost., Phillips, Sampson, 1854. 3d ed. 1856.

HODGE, J. T. Report on the Vanderburg mine (Cabarrus Co., N. C.) G. F. Nesbett, 1853. 15 p.

JAEGER, B[enedict], and PRESTON, H. C. The life of North American insects, by B. Jaeger, assisted by H. C. Preston. N. Y., George Savage, 1853. 264 p.

Another ed. Pub. for the author, Providence, Sayles, Miller & Simons, printers, 1854. iv, 204 p. 6 pl. port. Another ed. Same title . . . with numerous illustrations from specimens in the cabinet of the author. N. Y., Harper, 1859. 319 p.

See Weiss, H. B. B. Jaeger. (see Appx. to Annot. Bib. in this volume).

*JEFFREY, John. Botanical expedition to Oregon. Edinburgh, 1853. 4 p. 5 pl. 4°.

Plates by Dr. Greville. Rev. in Hooker's Jour. Bot. & Kew Miscellany. v. 5, p. 315–17, 1853; & Bot. Soc. Edinburgh. Trans. v. 6, p. 350, 351. 1853. See also COVILLE, F. V. The itinerary of John Jeffrey, an early botanical explorer of western North America. (In Biol. Soc. Wash. Proc. v. 11, p. 57–60. March, 1897) Repr. in Torrey Bot. Club. Bull. v. 24, p. 322–28. June, 1897.

KING, Henry. Report on the Rives, Hinch, Bleeding Hill, and Blanton copper mines, in the state of Missouri. St. Louis, Missouri Republican Office, 1853. 26 p. map.

KNEELAND, Samuel, Jr., and *SMITH, C. H. The natural history of the human species; its typical forms, primeval distribution, filiations, and migrations, by Charles Hamilton Smith; with a preliminary abstract of the views of Blumenbach, Prichard, Bachman, Agassiz, and other authors of repute on the subject, by S. Kneeland, Jr. Bost., Gould & Lincoln, 1853. 419 p. illus.

KNOEPFEL, W. H. An account of Knoepfel's Schoharie cave, Schoharie Co., N. Y.; with the history of its discovery, subterranean lake, minerals and natural curiosities. N. Y., W. E. & J. Sibell, 1853. 16 p. 2 pl.

MARCOU, Jules. A geological map of of the United States and the British provinces of North America, with explanatory text, geological sections, and plates of the fossils which characterise the formations. Bost. Gould & Lincoln, 1853. 92 p. 8 pl.

Rev. in Amer. J. Sc. v. 67, p. 199–206. Mar. 1854; & v. 72, p. 383–88. Nov. 1856 (by W. P. Blake)

MAUGHAS, M. M. Geological researches in Missouri. (In Western Jour. & Civilian. St. Louis, 1853. v. 9, p. 382–96)

Rd before Missouri Hist. & Philos. Soc. Jan. 27, 1853

MEEHAN, Thomas. The American hand-book of ornamental trees. Phila., Lippincott, 1853. 15 + 257 p.

*OLSHAUSEN, Theodor. Die Vereinigten Staaten von Amerika geographisch und statistisch beschrieben . . . Kiel, 1853–55. 2 v. in 3 pts. viii, 426, [1] p.; x, [8], 190 p.; x, 201 p. 7 maps.

ROGERS, H. D. Reports on the Wheatley, Brookdale and Charleston mines, Phoenixville, Chester Co., Pa. 1853. 40 p.

Rev. in Amer. J. Sc. v. 66 (ser. 2, v. 16), p. 422. Nov. 1853.

SHEPARD, C. U. Report on gold and copper mines at Gold Hill, Rowan Co., N. C. Charleston, 1853. 18 p.

SILLIMAN, Benjamin, Sr. A visit to Europe in 1851 . . N. Y., G. P. Putnam, 1851. 2 v. illus. [viii, 418; viii, 468]

Six ed. to 1858.

SPILMAN, C. H. Catalogue of Kentucky plants. (In Kentucky State Med. Soc. Trans. 1853. p. 306–18)

STRONG, A[sa] B. Illustrated natural history of the three kingdoms, containing scientific and popular descriptions of man, quadrupeds, birds, fishes, reptiles, insects, etc. ed. & comp. by . . . N. Y., Green & Spencer, 1853. 3 v. 150 col. pl. front. Copyrighted in 1847. v. 1, 380 p.; v. 2, 382 p.; v. 3, 386 p.

TYSON, P. T. Report on the gold deposits and works of the Manteo Mining Company in North Carolina. Baltimore, J. D. Toy, 1853. 27 p. maps.

———— Report on the gold deposits and works of the Persverance Mining Company in North Carolina (the Russell mine). Baltimore, J. D. Toy, 1853. 12 p. map.

WARDER, J. A., ed. The Horticultural Review and Botanical Magazine. Cincinnati, 1853–54.

Established as the Western Horticultural Review.

1854 ALLEN, J. F. Victoria Regia; or, The great water lily of America with a brief account of its discovery and introduction into cultivation, with illustrations by William Short, from specimens grown at Salem, Mass., Bost. 1854. 18 p. 6 col. pl. 4°.

AUDUBON, J. J., and BACHMAN, John. The Quadrupeds of North America. N. Y. Pub. by V. G. Audubon, 1854. 3 v. 155 col. pl. roy 8°.

v. 1, no. 1–10, p. 1–viii, 1–384; pl. 1–50

v. 2, no. 11–20, p. 1–334; pl. 51–100

v. 3, no. 21–31, p. 1–vi, 1–348; pl. 101–155

Plates lithographed, printed and colored by J. T. Bowen. 78 plates by J. J. & 77 by J. W. Audubon.

See Herrick, F. H. Audubon. 1917. v. 2, 405–6.

See also W. Stone. Auk. v. 23, p. 298–312. 1906.

For Original issue of Plates, see 1845 (above)

For " " " "Text," see 1846 (above)

BUIST, Robert. The family kitchen gardener, containing plain and accurate descriptions of all the different species and varieties of culinary vegetables; also, descriptions and characters of the most select fruits, their management, propagation, etc. N. Y., C. M. Saxton, 1854. 216 p. illus.

Other subsequent ed. Copyrighted in 1847.

CHICKERING, J. W., Jr. List of marine fresh-water and land shells, found in the immediate vicinity of Portland, Me. 1854.

CARSON, Joseph. Remarks on the California nutmeg. (In Amer. Jour. Pharm. v. 26, p. 499–501, illus. 1854)

COULTAS, Harland. The principles of botany as exemplified in the Phanerogamia. Phila., King & Baird, 1854. 230 p. illus. 12°.

DARLINGTON, William. Catalogue of medical plants indigenous to Chester County, Pa. West Chester, Pa., 1854. (In Med. Reporter. v. 2, p. 33–9)

*DIEFFENBACH, Otto. Beobachtungen über die Erz-Gange und das Gang-Gebirge von Nord-Carolina und den angrenzenden Staaten. (In Neues Jahrbuch für Mineralogie. Stuttgart, 1854. p. 663–69)

DOWLER, Bennet. Discovery of viviparous fish in Louisiana. (In New Orleans Med. & Surg. Jour. 1854.)

EIGHTS, James. Report in relation to the Fisher Hill and Puckett mines in Guilford Co., N. C. Fisher Hill, N. C., 1854. 7 p.

EMMONS, Ebenezer. On the influence of climate on plants and animals. (In Edinburgh New Philos. Jour. v. 56, p. 118–27. 1854)

FITCH, Augustus. 1) The shrubs, flowers and plants of California; 2) Trees of California and Oregon. (In Amer. Inst. City N. Y. Trans. for 1853. Albany, 1854. p. 75–84; p. 239–44)

FOX, Charles. Birds of Michigan. Detroit, 1854. (In Peninsular Jour. Med. & Collateral Sc. p. 159–63)

GREEN, F. H., and CONGDON, J. W. Analytical class-book of botany . . . N. Y., Appleton & co., 1854. 228 p. illus.

pt. 1 Elements of vegetable structure and physiology, by F. H. Green.

2 Systematic botany, by J. W. Congdon.

HUBBARD, Bela. Geological report. . . Lansing, Mich., 1854. (In Michigan State Agric. Soc. Trans. for 1853. v. 5, p. 278–339)

Repr. of his Repts. of 1840 & 1841 to Mich. Geol. Surv. (1837), q.v (v. 2, p. 639–40)

HUNTON, A. Observations on the medical virtues of some of the most prominent indigenous vegetables grown in Vermont. (In N. J. Med. Reporter. 1854. v. 7, p. 20, 171, 357, 461)

Cont. in v. 8, p. 69–73. 1855.

KENT, J. E. First lessons in chemistry and geology, as adapted to agriculture . . . Bost., 1854. 108 p.

LEEDS, S. P., and PENMAN, J. E. Reports on the Rudisil gold and copper mine at Charlotte, Mecklenburg County, N. C. N. Y., McSpeddon & Baker, 1854. 12 p.

*LYELL, Charles and HALL, James. Rapport sur la partie géologique de l'exposition de New York; traduit de M. A. Langel. (In Annales des Mines. Paris, 1854. v. 6, p. 1–85)

MASSACHUSETTS HORTICULTURAL SOCIETY. Catalogue of books in the library of. . . Jan. 1854. Bost. 1854. 33 p.

Other ed. 1867, 65 p.; 1873, 155 p. For the latest, see Appx. in this volume: Annotated Bibliography.

NOTT, J. C., and GLIDDON, G. R. Types of mankind; or, Ethnological researches based upon the ancient monuments, paintings,

sculptures, and crania of races, and upon their natural, geographical . . . history. Phila., Lippincott, Grambo co., 1854, lxxvi, [2], [49]–738 p. illus.

Includes contributions by S. G. Morton, L. Agassiz, W. Usher & H. S. Patterson. Numerous subsequent editions.

OSGOOD, George. List of plants collected March 25th to Nov. 27th, 1853, principally from North Danvers, with a few from Pleasant Pond, Wenham. (In Salem Gazette. May 26 & June 2, 1854)

PORCHER, F. P. On the medicinal and toxicological properties of the cryptogamic plants of the United States. (In Amer. Med. Assoc. Trans. v. 7, p. 167–284. 1854)

Repr. N. Y. Baker, Godwin, printers, 1854. 126 p. as "On the medicinal, poisonous and dietetic properties. . ."

ROGERS, H. D. On the geology and physical geography of North American. (In Royal Inst. Gt. Britain. Proc. v. 2, p. 167–87. 1854)

SHEPARD, C. U. Report to the Swedish Iron Manufacturing Co. Charleston, 1854

THOREAU, H. D. Walden; or, Life in the woods. Bost., Ticknor & Fields, 1854. 357 p. plan.

Numerous subsequent ed.

WARDER, J. A. A geological reconnaissance of the Arkansas River. Cleveland, 1854. 27 p. illus.

WARREN, J. C. Remarks on some fossil impressions in the sandstone rocks of Connecticut River. Bost. Ticknor & Fields, 1854. 54 p. pl.

Chiefly remarks made at various times before the Bost. Soc. Nat. Hist. (1830)

WHITNEY, J. D. The metallic wealth of the United States, described and compared with that of other countries. Phila., Lippincott, Grambo & co., 1854. 2 p. l. ix–xxxii, [33]–510 p. illus. 3 pl.

Rev. in Amer. J. Sc. v. 68, p. 274–77, 1854. & in Mining Mag. v. 3, p. 81–7, 471–76. 1854

See also MERRILL, p. 438–40 & his First 100 yrs. Amer. Geol. 1924. p. 328–30.

1855 ANON. Arboricultural notes—notices on trees. (In Horticulturist. Albany, 1855. v. 10, p. 320–23, 371–75, 452–54)

BACHMAN, John. An examination of Prof. Agassiz's Sketch of the natural provinces of the animal world and their relation to the different types of man. Charleston, S. C., 1855. 54 p.

Repr. from the Charleston Med. Jour. (1846), v. 10, p. 482–534. July, 1855. Agassiz's paper pub. in Edinb. New Phil. Jour. v. 57, p. 347–63. 1854.

BARRY, P. The Big tree of California; Sequoia gigantea of Torrey. Albany, 1855. (In Horticulturist. v. 10, p. 398–401)

BELL, John. Mineral and thermal springs of the United States and Canada. Phila., Parry & Macmillan, 1855. 394 p.

BLAKE, W. P. Observations on the physical geography and the geology of the coast of California from Bodega Bay to San Diego; physical geography of the mountain ranges adjoining the coast; geology of the principal bays from Point Reyes to San Diego. (In U. S. Coast Surv. Rept. for 1855. p. 376–98)

Cont. in Rept. for 1857. p. 18–

BROWNE, D. J. The American poultry yard. . . N. Y., C. M. Saxton, 1855. 324 p. illus.

CABELL, P. H. Reply to the review of J. Hale, [Medical botany of Dallas County, Ala.] (In New Orleans Med. & Surg. Jour. v. 12, p. 346–49. 1855–56) Dr. HALE'S review on p. 278.

COULTAS, Harland. The plant: an illustration of the organic life of the animal. Phila., Perry & Erety, 1855. vi, [7]–180 p. illus.

CURREY, R. O., and PROCTER, C. A. Copper district of Tennessee, Georgia, North Carolina, and Virginia—its history, geology, and mining interests. (In Southern Jour. Med. & Pharm. v. 3, p. 38–44. 1855)

DARBY, John. Botany of the southern states; in two parts . . . N. Y., A. S. Barnes & co., 1855. 612 p. illus.

Pt. 1 Structural and physiological botany and vegetable products.
2 Descriptions of southern plants; arranged on the natural system; preceded by a Linnaean and dichotomous analysis.

Another ed. 1856.

Rev. in Amer. J. Sc. ser. 2, v. 20, p. 131–34. July, 1855.

DARLINGTON, William. A plea for the study of natural history in the common schools of our country. . . Lancaster, Pa., 1855. 7 p.

Rd before Teachers' Institute of Chester Co., Pa., Oct. 15, 1855, at West Chester, Pa.

DE VERE, Schele. Stray leaves from the book of nature. N. Y., G. P. Putnam, 1855. 292 p. illus.

*DIEFFENBACH, Otto. 1) Bemerkungen uber den Mineralreichtum der Vereinigten Staaten von Nord-Amerika; 2) Das Vorkommen von Chrom-Erzen und ihre Verarbeitung in den Vereinigten Staaten von Nord-Amerika. (In Neues Jahrbuch fur Mineralogie. Stuttgart, 1855. p. 527–32; 533–39).

Cont. in 1856, p. 385–94.

DOUGLASS, C. C. Geological survey. . . Lansing, Mich. 1855. (In Mich. State Agric. Soc. Trans. for 1854. v. 6, p. [261]–303)

Repr. of his 1839–1841 Repts. to Mich. Geol. Surv. (1837), q.v. (v. 2, p. 640–41)

DOWLER, Bennet. On the discovery of vivaparous fish in Louisiana. (In Annals Nat. Hist. v. 15, p. 206–10. 1855)

EATON, F. B. Insects injurious to vegetation. (In New Hampshire State Agric. Soc. Trans. for 1854. 1855. v. 3, p. 199–207)

EIGHTS, James. A report on the geological, mineralogical and other resources of the Hiatt tract of land, containing 2000 acres and situated in the county of Surry, N. C. Greensborough, N. C., 1855. 8 p.

EMMONS, Ebenezer. American geology, containing a statement of the principles of the science, with full illustrations of characteristic American fossils. With an atlas and a geological map of the U. S. Albany, Sprague & co., 1855–57. 3v. illus. map. 19 double pl.

v. 1, pt. 1, 194 p. 1855; v. 2, 251 p. 1855; v. 3, pt. 3, 152 p. 1857.

v. 1, pt. 2, contains the Taconic system. 244 p. pl.

Rev. in Amer. J. Sc. ser. 2, v. 19, p. 397–406. 1856.

Also 2d ed. entitled Manual of geology: designed for the use of colleges and academies. . . 2d ed. N. Y. Barnes & Burr, 1860. xi, 13–297 p. front. illus. Another ed. 1867 & 1875. 3 pts.

EWBANK, Thomas. The world a workshop; or, The physical relation of man to the earth. N. Y. 1855. 198 p.

FISK, C. B. Reports of . . . to the Covington & Ohio Railroad . . . Richmond, 1855. 77 p.

FITCH, G. W. Outlines of physical geography. N. Y. J. H. Colton & co., 1855. 225 p. illus. pl.

HOLBROOK, J. E. Ichthyology of South Carolina. Charleston, S. C., Russell & Jones, 1855–57. 182 p. 27 col. pl. 4°.

2d ed. 1860, 8 + 205 p. 28 col. pl.

Rev. in Amer. J. Sc. v. 87, p. 89–94. Jan. 1864.

JONES, Joseph. . . Observations on the kidney and its excretions in different animals. (In Amer. Jour. Med. Sc. Phila. 1855. n. s v. 29, p. 295–336)

LORD, D. N. Geognosy; or, The facts and principles of geology against theories. N. Y. 1855. 412 p.

*MAIER, Fritz. Vegetations—Charakter des Nord-Ostens der Vereinigten Staaten von Nord-Amerika; eine pflanzengeographische Skizze. (In Allgemeine Gartenzeit. 1855. v. 23, p. 249–53, 258–61)

MARCOU, Jules. Uber die Geologie der Vereinigten Staaten und der Provinzen von Nord-Amerika. (In Petermann's Mittheilungen. Gotha, 1855. v. 1, p. 149–59, map)

MAURY, M. F. The physical geography of the sea. N. Y. Harper bros., 1855. 274 p.

*Murray, Alexander. Description of new coniferous from California. (In Edinburgh New Phil. Jour. v. 1, p. 284–95. 1855)

See also his "Notes upon the California trees" in v. 10, p. 1–8, 1859 & v. 11, p. 205–28, 1860.

Owen, D. D. Geological report. . . (In Saline coal & manuf. co. Report of the presidents & directors. Cincinnati, 1855. 91 p. map)

Piper, R. U. The trees of America. Bost. [1855–58] [3], 64 p. 14 pl. 4°.

Rev. in North Amer. Rev. v. 85, p. 178–204. July, 1857. 4 nos. pub.

Silliman, B[enjamin], Jr. Report on the rock oil, or petroleum, from Venango Co., Pa., with special reference to its use for illumination and other purposes. New Haven, J. H. Benham, 1855. 20 p. (In Libr. Congr.)

Silliman, Benjamin, and Hall, James. Report on coal lands in Kentucky, for the Kentucky Mining & Manuf. Co. N. Y. 1855. 16 p.

Silliman, Benjamin, Jr., and Porter, J. A. Report of an examination of the Ohio Diamond Coal Co., properties in Jefferson County, Ohio. New Haven, 1855. 22 p. map.

Silliman, Benjamin, Jr., & Whitney, J. D. . . Report of an examination of the Bristol copper mine in Bristol, Conn. . . Aug. New Haven, Hayes, 1855. 32 p. illus. tab.

Trask, J. B. Report on the geology of the Sierra Nevada, or Californian range. (In Pharmaceutical Jour. v 14, p. 20–4. 1855)

TUOMEY, Michael, and HOLMES, F. S. Pleiocene fossils of South Carolina: containing descriptions and figures of the Polyparia, Echinodermata and Mollusca . . . Charleston, S. C., Russell & Jones, 1857. xvi, 152 p. 30 l. 34½ x 27½ cm.

Issued in 10 parts between 1855–57.

Vinton, Francis. Address at the inauguration of the Hunt Botanical Garden in Brooklyn, N. Y., delivered in the Athanaeum at the vernal exhibition of flowers of the Brooklyn Horticultural Society on the evening of April 11, 1855. . . Brooklyn, N. Y., Hogan & Heighway, printers, 1855. 31 p.

Copy seen in library of Brooklyn Botanic Garden.

See Gager (1), under Annotated Bibliography.

Warren, J. C. The great tree on Boston Common. Boston, 1855. 20 p. pl.

Whittlesey, Charles. Recollections of a tour through Wisconsin, in 1832. Madison, 1855. (In State Hist. Soc. Wisconsin. Rept. & Coll. v. 1, appx. 5, p. 64–85)

Williams, S. W. A list of the principal medicinal plants enumerated by botanists and known to be growing in northern Illinois and Wisconsin; with a slight notice of some of their medical properties. Chicago, 1855. (In Northwestern Med. & Surg. Jour. v. 12, p. 49–70)

WINCHELL, Alexander. The shell marls of Michigan. (In Michigan Farmer, 1855. p. 257–59)

1856 ANON. The charter and by-laws of the Maryland Anthracite Coal Company of the Wyoming coal region, with reports on the geology and mining resources of their coal lands. Balt. J. W. Woods, 1856. 46 p. maps.

*ANSTED, D. T. Report on the Forest Hill estate and coal field near the Great Kanawha River, western Virginia. 1856. 12 p.

[BERTELET, P. G.?] [Notes on the geology of Berks County, Pa., and geological map of Olney and vicinity.] (In Med. Soc. Pa. Trans. n. s. v. 1, p. 47. 1856)

BRODHEAD, J. R., ed. Documents relative to the colonial history of the State of New York, procured in Holland, England and France. Albany, N. Y., 1856–61. 11 v. maps. 4°.

The reprinted documents contain natural history material.

CASSIN, John. Illustrations of the birds of California, Texas, Oregon, British, and Russian America. Intended to contain descriptions and figures of all North American birds not given by former American authors, and a general synopsis of North American ornithology . . . 1853 to 1855. Phila. J. B. Lippincott & co., 1856. viii, 298 p. 50 col pl. (front.) 4°.

Issued in 10 pts. See also COUES (1), pt. 1, p. 644–45.

CHRISTY, David. Preliminary report on the lands of the Nantahala and Tuckasege land and mineral company. Cincinnati, Wrightson & co., 1856. 24 p.

2d Report. 1858. 24 p.

CLARK, J. T. C. The amateur's guide and flower-garden directory; containing every requisite detail for the successful cultivation of the flower garden, embracing the classification of the best varieties of roses . . . Wash. D. C., Taylor & Maury, 1856. 158 p.

FOSTER, J. W. Report upon the mineral resources of the Illinois Central Railroad made at the request of the president. N. Y. G. S. Roe. 1856. 29 p. map.

GOBINEAU, J. A. de, and NOTT, J. C. The moral and intellectual diversity of races . . . from the French of De Gobineau . . . with an analytical introduction and copious historical notes, to which is added a scientific appendix containing a summary of the latest scientific facts bearing upon the question of unity or plurality of species, by J. C. Nott. Phila 1856. 516 p.

GOULD, A. A., and *CARPENTER, P. P. Descriptions of shells from the Gulf of California and the Pacific coasts of Mexico and California, pt. 2. (In Zool. Soc. Lond. Proc. v. 24, p. 198–208. 1856)

GRAY, A. B. Survey of a route for the southern Pacific Railroad, on the 32d parallel, for the Texas Western Railroad Co. Cincinnati, Wrightson & co., 1856. 110 p. 3 maps. 29 pl.
Also in Spanish transl., 114 p.

HALL, James. On the genus Tellinomya, and allied genera. (In Canadian Nat. & Geol. v. 1, p. 390–95)

*HENNING, Wilhelm. Eine botanische Skizze aus Nord-Amerika. (In Bonplandia. Hannover, 1856. v. 4, p. 246–56)
Refers to Wisconsin.

HUBBARD, Bela. Geological report. . . Lansing, Mich., 1856. (In Mich. State Agric. Soc. Trans. for 1855. v. 7, p. [355]–96)
Repr. of his 1839 Rept. to Mich. Geol. Surv. (1837), q.v. (v. 2, p. 639)

KENT, E. N. Statement of the condition and prospects of the Western Mining and Manufacturing Company of Boone County, Va. Phila. 1856. 28 p.

LAIDLEY, T. T. S. Timber and minerals of the Deep River country, North Carolina. Wash. 1856. 5 p. (In U. S. 34th Cong. 1st sess. Ex. Doc. no. 109. v. 12) Serial no. 859.

LEASURE, D. Geological section at Newcastle, Lawrence Co., Pa. (In Med. Soc. Pa. Trans. n. s. v. 1, p. 96. 1856)

LESLEY, J. P. Manual of coal and its topography . . . chiefly of facts in the geology of the Appalachian region of the United States of North America. Phila. 1856. 12 + 224 p.
Rev. in Amer. J. Sc. v. 72, p. 302, Sept. 1856. Also in Franklin Inst. Jour. ser. 3, v. 33, p. 70–2. 1856. See also Merrill, p. 461–62 & his First 100 yrs. Amer. Geol. 1924. p. 342–43.

MARSH, G. P. The camel: his organization, habits, and uses, considered with his reference to his introduction into the United States. Bost. Gould & Lincoln, 1856. 224 p.

PARKER, N. H. Iowa: geography, description, travel, etc., sectional and geological map exhibiting her geological resources. . . Clinton, Iowa, 1856. 43 x 28 inches.
Also Iowa as it is in 1855. Bost. Jewett, 1855. 264 p.

PARKER, W. B. Notes taken during the expedition commanded by Capt. R. B. Marcy, U. S. A., through unexplored Texas, in the summer and fall of 1854. Phila. Hayes & Zell, 1856. 12 + 242 p.

ROGERS, H. D. On the correlation of the North American and British palaeozoic strata. (In British Assoc. Adv. Sc. Rept. for 1856. pt. 2, p. 175–86)

ROSET, Hipponax. Jewelry and the precious stones; with a history and description from models, of the largest individual diamonds known, in-

cluding particularly a consideration of the Koh-I-Noor's claim to notoriety. Phila. John Pennington & son, 1856. 41 p.

SAY, Thomas. Descriptions of terrestrial shells of North America. Phila., Childs & Peterson, 1856. 44 p. pl.

Ed. by W. G. Binney.

SHEPARD, C. U. Report on the copper and silver lead mine at Canton, Cherokee County, Ga. New Haven, 1856. 20 p. illus.

Two editions; 2d ed. in 1856.

SPRINGER, J. S. Forest life and forest trees, comprising winter camp-life among the loggers; and wild-wood adventures. N. Y. 1856. 259 p.

"Many illustrations are the same as those in Jackson's Reports on the Geology of Maine." S. L. Boardman.

SULLIVANT, W. S. The Musci and Hepaticae of the United States east of the Mississippi contributed to the second edition of Gray's Manual of Botany. N. Y. 1856. 113 p. 8 pl.

SULLIVANT, W. S., and LESQUEREUX, Leo. Musci Boreali Americani quorum specimina exsiccata W. S. Sullivant et L. Lesquereux ediderunt. Columbus, the authors, 1856. 84 p. 4°.

2d ed. 1865. 96 p.

1st ed. rev. in Amer. J. Sc. v. 73 (ser. 2, v. 23), p. 438–39. May, 1857.

WESTON, Silas. Visit to a volcano; or, What I saw at the Western Islands (Azores). Providence, E. P. Weston, 1856. 48 p.

Copy seen at the N. Y. Public Library.

*WIED-NEUWIED, M. A. P. von. 1) Ueber den Nord americanischen rothköpfigen Urubu (cathartes aura, Aud; Bonap.); 2) Ueber die N-A. Elster (Pica hudsonica, Bonap.). Cassel, 1856. (In Jour. Ornith. ed by Cabanis. v. 4, p. 119–24; 197–204)

WRIGHT, John. Report of botanist. . . Lansing, Mich., 1856. (In Mich. State Agric. Soc. Trans. for 1855. v. 7, p. 396–423)

Repr. of his 1839 Rept. to Mich. Geol. Surv. (1837), q.v. (v. 2, p. 639)

1857 AGASSIZ, Louis. Contributions to the natural history of the United States of America . . . Bost. Little, Brown & co., 1857–62. 4 v. illus. 77 pl. 4°.

Preface dated Oct. 3, 1857. Plates engraved by A. SONREL and H. J. CLARK.

CONTENTS

1857 v. 1, pt. 1 Essay on classification li, p. [1]–232.
pt. 2 N. A. Testudinata p. [233]–452d.
v. 2 pt. 3 Embryology of the turtle [2], p. [451]–643, 34 pl. [585 fig.]

1860 v. 3 pt. 1 Acalephs in general xi, p. [1]–152
pt. 2 Ctenophorae [153]–301 + 26 p., 26 pl. [457 fig.] (Acalephs)
1862 v. 4 pt. 3 Discophorae viii, p. [1]–180.
pt. 4 Hydroidae p. [181]–372
pt. 5 Homologies of the Radiata p. [373]–80, + 12 p. 17 pl. [306 fig.]

Appeared in parts. Early parts rev. in Amer. J. Sc. v. 70, p. 149–51. July, 1855 & v. 75, p. 126–28, 202–16, 321–41, 1858; & v. 1–3 rev. by J. W. Dawson in Canadian Nat. & Geol. v. 3, p. 201–12, 241–60, 1858; & v. 6, p. 60–6, Feb. 1861.

ANON. Guide to Laurel Hill Cemetery, near Philadelphia. Phila. [1857]. 143 + 78 p.

Trees & Shrubs, p. 73–86.

ANON. Reports on the survey of the summit level of the James River and Kanawha Company, and on a geological examination of the line of the canal. . . 1857.

*ANSTED, D. T. 1) On some remarkable mineral veins; 2) On some copper lodes near Sykesville in Maryland. (In Geol. Soc. Lond. Quart. Jour. v. 13, p. 240–54. 1857)

BAIRD, S. F. The Mammals of North America; the descriptions of the species based chiefly on the collections in the Museum of the Smithsonian Institution . . . Phila. J. B. Lippincott & co., 1857–59. 735, 55, [737–64] p. illus. 87 pl.

In 3 parts, of which pts 1 & 3 are continuously paged; pt. 1 is a repr. of v. 8 of the Pacific RR. Surv. Repts (1853), q.v.; & pt. 2 is a Special Rept. on the Mammals of the U. S. & Mexican Boundary Surv. (1848), q.v.

BRENDEL, F[rederick] Vögel der Umgegend Peorias in Illinois. Halle, 1857. (In Zeitschr. Gesell. Nat. v. 9, p. 420–26)

See also p. 426–33, by *GIEBEL, C. G.

COOPER, J. G. Report on the medical flora of Washington Territory. Phila. 1857. (In Amer. Med. Assoc. Trans. v. 10, p. 219–37)

CURREY, R. O. A sketch of the geology of Tennessee, with a description of its minerals and ores, and of its soils, productiveness and palaeontology. Knoxville, Kinsloe & Rice, 1857. x, 128 + 7 p.

Rev. in Amer. J. Sc. v. 74, p. 280. Sept. 1857; & in Charleston Med. Jour. v. 12, p. 774–75. 1857.

Extracts appeared in Southern Jour. Med. & Assoc. Sc.

DORSCH, E. The medical plants of Michigan. Detroit, 1857. (In Med. Independent. v. 3, p. 329, 395)

FLAGG, Wilson. Studies in the field and forest. Bost. Little, Brown & co., 1857. vi, 330 p.

HARTMAN, W. D. Medical topography and geology of Chester Co., Pa. (In Med. Soc. Pa. Trans. n. s. v. 2, p. 109–18, col. map. 1857)
Rev. in Amer. J. Sc. v. 75, p. 151. Jan. 1858

HAWKS, F. L. History of North Carolina . . . Fayetteville, N. C., E. C. Hale & son, 1857–58. 2v. illus. maps.

HUSE, W. W. The diseases of tobacco; or. Some inquiries into the causes, the appearance, and the preventives of tobacco-mould. N. Y. 1857. 36 p.

KIMBALL, J. P. Flora from the Apallachian coal-field; inaugural dissertation for the degree of doctor of philosophy addressed to the philosophical faculty of the University of Gottingen, 1857. 1857. [29 p.] 3 pl.
Transl. in Jahrbuch Mineralogie ed. Leonhard & Bronn. 1858. p. 400–2. Rev. in Amer. J. Sc. v. 75, p. 151. Jan. 1858.

NEWBERRY, J. S. Report on the economical geology of the route of the Ashtabula and New Lisbon Railroad. Cleveland, 1857. 47 p. map.

NOTT, J. C., and GLIDDON, G. R. Indigenous races of the earth; or, New chapters of ethnological inquiry, including monographs on special departments of philology, iconography, cranioscopy, palaeontology, archaeology, comparative anatomy, geography and natural history; contributed by Alfred Maury, Francis Pulzley, and J. A. Meigs; presenting fresh investigations, documents and materials. Lond. & Phila. Lippincott, 1857. 656 p. pl. maps.

OWEN, Richard. Key to the geology of the globe: an essay designed to show that the present geographical, hydrographical and geological structures, observed on the earth's crusts, were the result of forces acting according to fixed demonstrable laws, analogous to those governing the development of organic bodies. Nashville, Stevenson & Owen; W. T. Berry & co., 1857. 256 p. illus. maps. diagr.
Rev. in North Amer. Rev. v. 85, p. 275–76. July, 1857.

PELL, R. L. On the habits of fishes. (In Amer. Inst. City N. Y. Trans. for 1857. p. 439–79)

RAWVOLLE, Charles, and PILAT, I. A. Catalogue of plants gathered in August and September, 1857, in the ground of Central Park, N. Y. N. Y. 1857. 34 p.

ROGERS, H. D. On the laws of structure of the more disturbed zones of the earth's crust. (In Edinburgh Royal Soc. Trans. v. 21, p. 431–72. 1857)

RUFFIN, Edmund. Agricultural features of Virginia and North Carolina. (In De Bow's Rev. v. 22, p. 462–79; v. 23, p. 1–20. 1857)

RUSSELL, J. L. Artificial planting of trees, its importance and benefits. (In Norfolk Agric. Soc. Trans. 1857. p. 106–15)

SAFFORD, J. M., and OWEN, Richard. Report upon the mineral and agricultural resources of the lands owned by the Hopkins Mastodon Coal & Iron Mining & Manufacturing Company. Nashville, 1857. map.

*SCLATER, P. L. Notes on the Birds in the Museum of the Academy of Natural Sciences of Philadelphia and other collections in the United States of America. (In Zool. Soc. London. Proc. 1857. p. 1–8)

See also p. 125–27, for list of birds collected by Mr. Thomas Bridges in valley of San Jose, Calif. Cont. in Proc. 1858. p. 1–3, pl.

SPRAGUE, Isaac, and GRAY, Asa. First lessons in botany and vegetable physiology, illustrated by over 360 wood engravings, from original drawings by Isaac Sprague; to which is added a copious glossary, or dictionary of botanical terms, by Asa Gray. N. Y. G. P. Putnam & co., 1857. 12+236 p. illus.

2d ed. 1859; 3d ed. 1862 (with Gray's Manual, 2 v. in 1) Rev. of 1st ed. in North Amer. Rev. v. 87, p. 321–42. Oct. 1858.

STROTHER, D. H. North Carolina illustrated: the fisheries, the piny woods; the gold region. (In Harper's Mag. v. 14, p. 433–50, 741–55; v. 15, p. 289–300. 1857)

SUCKLEY, George. Report on the fauna and medical topography of Washington Territory. (In Amer. Med. Assoc. Trans. v. 10, p. 181–217. 1857)

*WIED-NEUWIED, M. A. P. von. Ueber den Papagei von Nord-America, Psittacus (Conurus) Carolinensis, Linn. Cassel, 1857. (In Jour. Ornith. ed. by Cabanis. v. 5, p. 97–105)

1858 BEALE, E. F. . . . Report of the expedition for the construction of a wagon-road from Fort Defiance to the Colorado River. Wash. 1858. 87 p. map. (In U. S. 35th Cong. 1st sess. H. Ex. Doc. v. 13, no. 124.) Serial no. 959.

Report made April 26, 1858. Journey extended from Gulf of Mexico to Pacific Ocean, June 25, 1857 to Feb. 21, 1858.

BLAKE, W. P. Gold in Georgia—a report upon the gold placers of a part of Lumpkin County, Georgia, and the practicability of working them by the hydraulic method. N. Y. J. F. Trow, 1858. 39 p. map.

Rev. in Amer. J. Sc. ser. 2, v. 26, p. 278–89. Sept. 1858.

BRENDEL, F[rederick]. Sciurus capistriatus. Halle, 1858. (In Zeitschr. Gesell. Nat. v. 12, p. 466–68)

CHRISTY, David. The southern highlands as adapted to pasturage and grape culture. Cincinnati, 1858. 44 p.

———— . . . Preliminary report of the Nantahala & Tuckasege Land and Mineral Co., for 1858. Cincinnati, Wrightson & co., 1858. 24 p.

COLLINS, P. McD. . . Information relative to the explorations of the Amorr River (Manchuria). . . Wash. 1858. 67 p. 2 maps. (In U. S. 35th Cong., 1st sess., H. Ex. Doc. v. 12, no. 98) Serial no. 958.

Series of letters written between Feb. 29, 1856 and Apr. 2, 1858.

EDWARDS, A. M. Life beneath the waters; or, The aquarium in America . . . N. Y. Bailliere, 1858. 168 p. illus.

GOADBY, Henry. A text-book of vegetable and animal physiology . . . N. Y. Appleton, 1858. 313 p. illus.
Rev. in North Amer. Rev. v. 87, p. 566. Oct. 1858.

GRAY, Asa. Botany for young people and common schools—how plants grow, a simple introduction to structural botany; with a popular flora, or an arrangement and description of common plants, both wild and cultivated. N. Y. Ivison & Phinney, 1858. 231 p. illus.
Rev. in North Amer. Rev. v. 87, p. 321–42. Oct. 1858.

HAGER, A. D. The marbles of Vermont: an address pronounced October 29, 1858, before the Vermont Historical Society. . . Burlington, Vt., 1858. 16 p.

HALL, James. Notes upon the genus Graptolitus, and description of some remarkable new forms from the shales of the Hudson River group, discovered in the investigations of the Geological Survey of Canada, under the direction of Sir W. E. Logan. . . (In Canadian Nat. & Geol. v. 3, p. 139–50, 161–77. 1858)

HIGGINS, Frank. A catalogue of the shell-bearing species of Mollusca inhabiting the vicinity of Columbus, Ohio—with remarks thereon. Columbus, Sept. 1858. 8 p.

[HOLMES, F. S.] [The horse not originally imported into America from the East.] [Carleston, S. C., 1858.] 16 p.
"A letter to the Charleston Mercury, with an article by Joseph Leidy on the fossils of the Post-Pliocene, and a letter from Louis Agassiz."
Rev. in Amer. J. Sc. ser. 2, v. 25, p. 442–43. May, 1858. Copy examined in N. Y. Public Library and Library of Congress. Also pub. under title: Remains of domestic animals discovered among Post-Pleiocene fossils in S. C. . .

LE CONTE, J. L. Notes on the geology of the Survey for the extension of the Union Pacific Railway, from the Smoky Hill River, Kansas to the Rio Grande. Phila. 1858. 76 p.

*LYELL, Charles. On certain trains of erratic blocks on the western borders of Massachusetts. (In Royal Inst. Proc. v. 2, p. 86–97. 1854–58)

MARCOU, Jules. Geology of North America; with two reports on the prairies of Arkansas and Texas, the Rocky Mountains of New Mexico, and the Sierra Nevada of California; originally made for the United States government. Zurich, Zurcher & Furber, 1858. [6], 144 p. 8 pl. 3 sect. & maps. 4°.

Rev. by J. D. Dana in Amer. J. Sc. ser. 2, v. 26, p. 323–33, Nov. 1858 & ser. 2, v. 27, 137–40, 1859.

Rev. by Agassiz in Amer. J. Sc. ser. 2, v. 27, p. 134–37. 1859.

See Pacific RR. Surv. (1853), v. 3–4, Whipple's Explor.

———— American geology: letter on some points of Texas, New Mexico, Kansas and Nebraska, addressed to Messrs. F. B. Meek and F. V. Hayden. Zurich, 1858. 40 p.

MÖLLHAUSEN, Baldwin. Diary of a journey from the Mississippi to the coasts of the Pacific with a United States government expedition . . . with an introduction by A. von Humboldt . . . transl. by Mrs. Percy Sinnett . . . Lond. Longman, 1858. 2 v. illus. 18 pl. maps.

v. 1, xxx, (2), 352; v. 2, x, (2), 397, (1) p. M. was attached to exped. of Pacific RR. Surv. (1853), v. 3–4, Whipple's Explor.

German ed. Leipzig, Mendelsohn, 1858. 2d ed. 1860. 15 + 496 p. 13 pl. map.

OSBORN, A. Field notes—geology. N. Y. Sherman & Co., 1858. 82 p. illus.

REDFIELD, Mrs. A. M. (T.). Zoological science; or, Nature in living forms . . . adapted to elucidate the chart of the animal kingdom and designed for the higher seminaries, common schools, libraries and the family circle. N. Y., E. B. & E. C. Kellogg, 1858. xiii, [1], 9–700 p. illus. 17 pl.

Another ed., 1865. 706 p. 17 pl. illus.

———— General view of the animal kingdom. N. Y. & Hartford, Kellogg, 1858. Chart. 5 x 4.5 feet.

Rev. in Amer. J. Sc. ser. 2, v. 25, p. 149. Jan. 1858.

SAY, Thomas. The complete writings of Thomas Say, on the conchology of the United States; ed. by W. G. Binney. N. Y. & Lond., H. Bailliere, 1858. 6 + 252 p. 75 col. pl.

Contains everything except the "Glossary of Conchology."

SHUMARD, B. F. Sur l'existence de la faune permienne dans l'Amerique Nord. . . Paris, 1858. (In Acad. Sc. Paris. Conte Rendus. v. 46, p. 897–900) & Soc. Geol. France Bull. (2). v. 15, p. 531–32. 1858. (Nickles)

TRACY, C. M. Studies of the Essex flora; a complete enumeration of all plants found growing naturally within the limits of Lynn, Mass., and the towns adjoining, arranged according to the natural system, with copious notes as to localities and habits. Lynn, Mass., 1858. 88 p.

TRUE, N. T. Insects injurious to vegetation. (In Maine Board Agric. Rept. 1858. p. 167–76)

TYSON, P. T. Report on the mineral lands of the Juniata Iron Co., in Juniata Co., 1858. 13 p. map.

UNZICKER, J. S. An unusual flight of birds in 1858. (In Wilson Bull. Oberlin, Ohio. no. 50, p. 13–4. Mar. 1905)
Ed. by Ruthven Deane. Letter to V. G. & J. W. Audubon.

VEECH, James. The Monongahela of old. . . . Pittsburgh, 1858–92. 259 p.

WARDER, J. A. Evergreens, their uses for shelter, economy and ornament, directions for planting, pruning and management, with an extended catalogue. (In his Hedges & evergreens. 1858. p. 220–86, illus.)

WEINLAND, D. F. Human Cestoides. An essay on the tapeworms of man . . . to which is added an appendix containing a catalogue of all species of Helminthes hitherto found in man. Cambridge, Mass., Metcalf, 1858. x, 93 p. illus. 4°.

*WIED-NEUWIED, M. A. P. Prince zu. Verzeichniss der Vögel, welche auf einer Reise in Nord-America beobachtet wurden. (In Jour. für Ornithology, ed. by Cabanis. Cassel, 1858–59. v. 6, p. 1–29, 97–124, 177–204, 257–84, 337–54, 417–44; v. 7, p. 81–96, 161–80, 241–60)

WRIGHT, C. W. The Mammoth Cave, Kentucky. Vincennes, Indiana, Harvey, Mason & Co., 1858. 68 p.

*XANTUS, JÁNOS. Levelei Ejszahameri kából. . . Budapest, Prépost, 1858. 175, [1] p. front. illus. pl.
A collector for the Smithsonian. Letters from North America. Copy seen in Library of Congress.

1859 AGASSIZ, Mrs. E. C. (Cary). A first lesson in natural history, by Actea (pseud.). Bost. Little, Brown & Co., 1859. 82 p. illus.
Subsequent ed., 1879, 1899, etc.

ANON. Catalogue of phaenogamous and acrogenous plants contained in Gray's Manual of the botany of the northern United States, adapted for marking desiderata in exchange for specimens. . . N. Y. 1859. 32 p.

ANON. Dr. Hitchcock and Dr. Deane; who first scientifically investigated and described the fossil footmarks of the Connecticut Valley? Springfield, Mass., 1859. 4 p.
From the "Springfield Republican"

BADGER, Mrs. C. M. Wild flowers, drawn and colored from nature . . . with an introduction by Mrs. L. H. Sigourney. N. Y. 1859. vii, 43 p. 22 pl. col.

BARRATT, Joseph. Zoomorphic sandstone of the Connecticut basin. Middletown, Conn., 1859.
From the "Sentinel & Witness"

BLACKIE, G. S. Botany as an ally of medicine. . . . Nashville, 1859. 24p.
A lecture delivered to the Medical Soc. Univ. Nashville, Dec. 2, 1859. Also in Nashville Jour. Med. & Surg. 1860. p. 8–29.

BRENDEL, F[rederick] 1) Zoologische beobachtungen; 2) Anatomische Mittheilungen über verschiedene Vögel. Halle, 1859. (In Zeitschr. gesell. Nat. v. 13, p. 31–40; 449–52)

CABELL, J. L. The testimony of modern science to the unity of mankind, being a summary of the conclusions announced by the highest authorities in the several departments of physiology, zoology, and comparative philology in favor of the specific and common origin of the varieties of man; with an introductory note by James W. Alexander. N. Y., Carter, 1859. 370 p.

See also Blackford, C. M., Jr. An early American evolutionist. (In Pop. Sc. Mthly. v. 52, p. 224–28. Dec. 1897)

CAMPBELL, A. H. Report upon the Pacific wagon roads . . . in 1857–'58–'59. Washington, 1859. (In U. S. 35th Cong., 2d sess., H. Ex. Doc. no. 108. v. 9. 125 p.) Serial no. 1008.

CURREY, R. O. A geological visit to the Virginia copper region. Knoxville, Beckett, Haws & Co., 1859. 64 p. map.

CURRIER. A. O. List of shells collected in the Grand River Valley (Michigan) Grand Rapids, 1859.

EMERSON, G. B. Forest trees (Dedham, Mass.) (In Norfolk Agric. Soc. Trans. for 1859. p. 95–106)

EMMONS, Ebenezer. Reports . . . together with other matters relative to the Glade gold mines, Cass Co., Ga. Montgomery, Ala., Barrett & Wimbish, 1859. 19 p.

FEUCHTWANGER, Lewis. A popular treatise on gems, in reference to their scientific value; a guide for the teacher of natural sciences, the lapidary, jeweller, and amateur; together with a description of the elements of mineralogy, and all ornamental and architectural materials. N. Y. Appleton & co., 1859. 464 p. illus. pl. diagr.

GOODRICH, S. G. Illustrated natural history of the animal kingdom, being a systematic and popular description of the habits, structure, and classification of animals from the highest to the lowest forms, with their relations to agriculture, commerce, manufactures and the arts. N. Y. Derby & Jackson, 1859–61. 2 v.

*GOSSE, P. H. Letters from Alabama (U. S.), chiefly relating to natural history. Lond. Morgan & Chase, 1859. 12 + 306 p. illus.

HILLSIDE, A. M. A familiar compend of geology for the school and the family. Phila. James Challen & co., 1859. 150 p. illus. pl.

JOHNSTON, Christopher. Notes on odontology. (In Amer. Jour. Dental Sc. Phila. 1859. n. s. v. 9, p. 337–43)

MATHER, W. W. Report on the State house artesian well at Columbus, Ohio. Columbus, Nevins, 1859. 41 p.

MEEHAN, Thomas, ed. The Gardener's Monthly and Horticultural Advertiser; devoted to horticulture, arboriculture, botany and rural affairs. . . . ed. by Thomas Meehan. Phila. 1859–1887. 29 v.

MOORE, Francis. Geological sketch of Texas. (In Texas Almanac. Richardson & co., 1859. p. 91–9)

*MURRAY, Andrew. Description of new Sertulariadae from the coast of California. (In Phys. Soc. Edinb. Proc. v. 2, p. 146–49. 1859)

Also in Annals Nat. Hist. v. 5, p. 250–52. 1860.

PHILLIPS, J. V. Report on the geology of the mineral districts contiguous to the Iron Mountain Railroad. St. Louis, 1859. 15 p. map.

PIPER, A. W. Trees of New York. Bost. 1859. 4°.

SAY, Thomas. The complete writings of Thomas Say on the entomology of North America; ed. by J. L. LE CONTE, with a memoir of the author by George ORD. N. Y. Bailliere bros., 1859. 2 v. 55 pl.

Another ed. N. Y. 1869, with title: "American entomology: a description of the insects of North America."

v. 1, xxiv + 412 p. 54 pl. v. 2 iv, [1], + 814 p.

Another ed., Phila. A. E. Foote, 1891. 2 v. 54 pl. Biographical sketch of Say, by Ord, pref. p. 7–21.

TRUBNER, Nicholas. Bibliographical guide to American literature; a classed list of books published in the United States of America during the last forty years; with bibliographical introduction, notes and alphabetical index . . . Lond. Trübner & co., 1859. 149 + 554 p.

Books on natural history, p. 147–92.

1860 ALLEN, J. A. Birds of New England. Pub. weekly in the New England Farmer 1860–63. For dates see COUES (1), pt. 1, p. 661.

ANDERSON, William. [Sketch of geology of Indiana County, Pa.] (In Med. Soc. Pa. Trans. n. s. v. 5, p. 85–90. 1860)

BAIRD, S. F., and LAWRENCE, G. N. The birds of North America; the descriptions of species based chiefly on the collections in the Museum of the Smithsonian Institution . . . Phila. J. B. Lippincott & co., 1860. 1005 p. 100 col. pl.

Repr. of v. 9 of the Pacific RR Surv. (1853), q.v., with numerous additions and corrections. & the plates.

BEALE, E. F. . . . Report . . . relating to the construction of a wagon road from Fort Smith to the Colorado River. Wash. 1860. 91 p. map. (In U. S. 36th Cong. 1st sess. H. Ex. Doc. no. 42, v. 6) Serial no. 1048.

Report made Dec. 15, 1859. Work begun in fall of 1858. Prosecuted along the plains on the 35th parallel.

BLACKIE, G. S. Contributions to the medical flora of Nashville. Nashville, Tenn. 1860. (In Nashville Jour. Med. & Surg. v. 19, p. 193–213)

BOARDMAN, S. L. Agricultural survey of Somerset County, Maine. Augusta, 1860. 71 p.

BRENDEL, Frederick. Verzeichniss der in Illinois wildwachsenden phanerogamischen und cryptogamischen Gefässpflanzen. Halle, 1860. (In Zeitschr. Gesell. Naturwiss. v. 15, p. 310–25)

CARSON, Joseph. On the source of balsam of Peru. (In Amer. Jour. Pharm. v. 32, p. 296–301, pl. 1860)

CHAPMAN, A. W. Flora of the southern states, containing abridged descriptions of the flowering plants and ferns of Tennessee, North and South Carolina, Georgia, Alabama, Mississippi, and Florida; arranged according to their natural system. N. Y. Ivison, 1860. xxviii, 621 p.

Ferns by D. C. EATON. p. 585–602. Rev. by Asa Gray in Amer. J. Sc. v. 80, p. 137–38. July, 1860.

COPELAND, R. M. Country life; a handbook of agriculture, horticulture, and landscape gardening. Bost. & N. Y., 1860. 10 + 814 p. illus. pl.

Numerous other ed.

COUES, S. E. Studies of the earth: an essay on the figure and surface-divisions of the earth, to geological and meteorological phenomena, and its astronomical elements. Wash. Philip & Solomons, 1860. 22 + 98 p. 4°.

Rev. in North Amer. Rev. v. 91, p. 572–73. Oct. 1860.

COULTAS, Harland. What may be learned from a tree. N. Y. D. Appleton, 1860. 190 p.

CURTIS, M. A. A commentary on the natural history of Dr. Hawks' History of North Carolina [pub. 1857–58] 1860.

DICKERSON, M. W. Report of the geological survey and condition of the Brown & Edwards' property in the county of Randolph, N. C. Phila. J. B. Chandler, 1860. 10 p.

————. Report of the geological survey and condition of the Phoenix Mining Company in the county of Guilford, N. C. Phila., Chandler, 1860. 15 p.

————. Report of the geological survey and condition of the Rhea mine in the county of Mecklenberg, N. C. Phila. J. B. Chandler, 1860. 10 p.

Includes report made by Emmons in 1853.

————. Report of the geological survey and condition of the Twin mine in the county of Guilford, N. C. Phila. Chandler, 1860. 11 p.

GILPIN, William. The central gold region. The grain, pastoral, and gold regions of North America. With some new views of its physical geography; and observations on the Pacific Railroad. Phila. Sower, Barnes & Co., 1860. 194 p. 6 maps.

GRAY, Asa. Natural selection not inconsistent with natural theology; a free examination of Darwin's treatise "On the origin of species" and of its American reviewers. Bost. Ticknor & Fields, 1860. 55 p.
Repr. from Atlantic Monthly. July–Oct. 1860.

HERVEY, E. W. A catalogue of plants found in New Bedford, Mass., and its vicinity. New Bedford, 1860. 30 p.

HOLMES, F. S., and [LEIDY, Joseph]. Post-pliocene fossils of South Carolina. Charleston, S. C., 1860. 2p. l, xii, v, [1], 122, [28] p. 4°.
Description of vertebrate fossils, by Leidy, p. 99–122. Issued in parts, 1858–60.

HOLBROOK, J. E. Ichthyology of South Carolina . . . Charleston, S. C. 1860. (v. 1) vii, 205 p. 28 col. pl. 4°.

JACKSON, R. M. S. Flora; or, Vegetable life of the mountains. (In his The Mountain. 1860. p. 203–80)

KURTZ, J. D. Catalogue of the recent marine shells found on the coasts of North and South Carolina. Portland, Me., David Tucker. 1860. 10 p.
Rev. in Amer. J. Sc. v. 79, p. 294–95. Mar. 1860.

LIEBER, O. M. Notes on the geology of the coast of Labrador. (In U. S. Coast Surv. Rept. 1860. p. 402–8)

MURRAY, Andrew. Notes upon the California trees, pt. 1–2. (In Edinburgh New Philos. Jour. v. 10, p. 1–8, 1859; v. 11, p. 205–28. 1860)
Also in Edinburgh Bot. Soc. Trans. v. 6, p. 210–17, 330–53, 369–70.

*ROEMER, Ferdinand. Die Silurische-Fauna des westlichen Tennessee eine palaeontologische Monographie . . . Breslau, Treuwendt, 1860. [8] + 100 p. 5 pl. [plus text]
Extr. in Cincinn. Quart. J. Sc. v. 1, p. 29–35, 190–92, 247–53. 1874.

RUFFIN, Edmund. Notes on the cane-brake lands; or, the cretaceous region of Alabama. . . . . [Richmond, Va., 1860] 26 p. diagr.
Repub. from the "Southern Planter, with corrections." In the Library of Congress.

RUSCHENBERGER, W. S. W. Elements of natural history: embracing zoology, botany and geology . . . Phila. J. B. Lippincott & co., 1860. 2 v. illus. pl. (nearly 1000 illus.)
Glossary at the end of the volume has 161 p. & its title-page reads "A lexicon of terms used in natural history" pub. 1850 (q. v.)

SMITH, H. L. Notes on Diatomaceae found near Gambia, Ohio. (In Microscopical Soc. Lond. Trans. v. 8, p. 33–5. 1860)
Probably written in 1837?

SPRAGUE, C. J. Catalogue of 1860 plants in the state agricultural museum. (In Mass. Agric. Board. Rept. Secret. no. 7. Bost. 1860. appx. p. 3–12)

Plants collected by Edward & Charles JARVIS & Henry LITTLE.

TENNEY, Sanborn. Geology for teachers, classes and private students. Phila. 1860. 320 p. illus.

Rev. in Amer. J. Sc. v. 79, p. 288. Mar. 1860.

THOMASSY, M. J. R. Géologie pratique de la Louisiane. Nouvelle-Orleans & Paris, 1860. 68 + 263 p. pl. maps.

VEACH, J. A. About Cerros Island. (In Hesperian, or Western Monthly Mag. Columbus, 1860. v. 3, p. 529–34)

WRIGHT, C. W. A guide manual to the Mammoth cave of Kentucky. Louisville, Bradley & Gilbert, 1860. 61 p.

WRIGHT, E. T. Lichen tufts from the Alleghanies. N. Y. 1860.

*XANTUS, János. Utazás Kalifornia deli reszeiben . . . Pesten, Lauffer, 1860. S, 191 p. front. pl.

Copy seen in Library of Congress. A collector for the Smithsonian.

1861 ABBOTT, C. C. Notes on the birds of the Falkland Islands. (In Ibis; ed. by Sclater. v. 3, p. 149–67. 1861)

ANON. The Bartram Botanic Garden. N. Y. 1861. 11 p.

ANON. Mineral riches of the earth . . . Phila. American Sunday School Union, [1861] 304 p. illus. pl.

*BARRANDE, Joachim. Documents anciens et nouveaux sur la faune primordiale et le Système, Taconique en Amerique. (In Soc. Geol. de France. Bull. ser. 2, v. 18, p. 203–321. 1861)

Includes notes by W. E. LOGAN, p. 309–14. Rev. in Canadian Nat. v. 6, p. 374–83. 1861.

BEMENT, C. N. American shade trees. (In Horticulturist. Albany, 1861–63. v. 16, p. 72–6, 167–71, 305–8, 495–98, 563–66; v. 18, p. 283–84)

BLACKIE, G. S. On the Cornus florida of the United States. (In Canadian Nat. & Geol. v. 6, p. 1–5. Feb. 1861)

Rd before Botanical Soc. at Kingston, Canada, Jan. 11, 1861.

DEANE, J[ames] Ichnographs from the sandstone of the Connecticut Valley. Bost. Little, Brown & co., 1861. 61 p. 46 pl.

Comp. & ed. by T. T. Bouvé, H. I. Bowditch, A. A. Gould & others.

DU CHAILLU, P. B. Explorations and adventures in equatorial Africa, with accounts of the . . . gorilla . . . and other animals. Lond. 1861. 18 + 479 p. 27 pl. map.

GOODALE, Stephen L. The principles of breeding; or, glimpses at the physiological laws involved in the reproduction and improvement of domestic animals. Bost. 1861. 164 p.

HUMPHREYS, A. A., and ABBOT, H. L. Report upon the physics and hydraulics of the Mississippi River; upon the protection of the alluvial region against overflow and upon the deepening of the mouths, based upon surveys and investigations . . . Phila. 1861. 13+456+146 p. 20 pl. 4°. (In U. S. Topogr. Eng. Prof. Papers. no. 4)

Repr. Wash. 1867. 214 p. pl. & in 1876. 691 p. 25 pl. 1st ed. rev. in Amer. J. Sc. v. 83, p. 181–89. Mar. 1862 & v. 85, p. 223–35. Mar. 1863.

JONES, J. Indigenous remedies of the Southern Confederacy. . . . Raleigh, N. C. (In Med. Jour. N. C. v. 3, p. 641–58. See also Nashville Jour. Med. & Surg. v. 21, p. 235–290. 1861)

MEIGS, J. A. On the mensuration of the human skull. (In North Amer. Med. Chirurgical Rev. v. 5, p. 837–61. 1861)

MÖLLHAUSEN, Baldwin. Der Halbindianer . . . Erzälung aus dem westlichen Nordamerika . . . Leipzig, Costenoble, 1861. 4 v.

————. Reisen in die Felsengebirge Nord-Amerikas bis zum Hoch-Plateau von Neu-Mexico . . . Jena, Costenoble, 1861. 2 v. 12 pl. map.

M. was attached to the Pacific RR. Surveys (1853), v. 3–4, Whipple's Explor.

RATHVON, S. S. Entomological essay. . . . Phila. Gardeners monthly book press, 1861. 36 p. pl.

Rd before Fruit Growers' Assoc. Eastern Pa. June 13, 1860.

RUFFIN, Edmund. Agricultural, geological, and descriptive sketches of lower North Carolina, and the similar adjacent lands. Raleigh, Inst. for Deaf, etc., 1861. xi, [13]–296 p.

TRYON, G. W., Jr. List of American writers on recent conchology, with the titles of their memoirs and dates of publications. N. Y. Bailliere bros., 1861. 68 p.

See under "Annotated Bibliography" in v. 1, p. 93.

WELLS, D. A. First principles of geology; a text-book for schools, academies and colleges. N. Y. Ivison, Blakeman, Taylor & co., [1861]. 333 p. illus. pl. diagr.

WHEATON, J. M. Catalogue of the Birds of Ohio. (In Ohio State Bd Agric. 15th Ann. Rept. for 1860. 1861. p. 359–98, 480)

1862 AGASSIZ, Louis. The structure of animal life; six lectures delivered at the Brooklyn Academy of Music in January and February, 1862. N. Y. Scribner, 1862. 11+128 p.

Appeared in the newspapers originally. Half-title reads "Graham lecture: v. 4".

*DAWSON, J. W. Notes on the flora of the White Mountains in its geographical and geological relations. (In Canadian Geol. & Nat. v. 7, p. 81–102. 1862)

FEUCHTWANGER, Lewis. . . . A large collection of American minerals containing many hundred unique specimens of gigantic crystals and ores at the Industrial Exhibition, London, 1862. London, 1862. 17 p.

GOULD, A. A. Otio conchologia: descriptions of shells and Mollusks, from 1839 to 1862. Bost. Gould & Lincoln, 1862. 2 p. l, 256 p.

Contains his papers on the shells of the Wilkes U. S. Explor. Exped. (1838), q.v., the Rodgers & Ringgold Explor. Exped. (1853), q.v., & Collectanea, reprints, with revisions of papers published in various periodicals.

GRAEF, H. A., and WIEBE, E. The measure worm (Ennomos subsignaria); a description of the insect in all its metamorphoses, the history and progress, and a systematic plan for its final extermination, together with remarks on the state of the shade trees, in the city of Brooklyn, N. Y. Brooklyn, N. Y., 1862.

KEMP, A. F. On the shore zones and limits of marine plants on the northeastern coast of the United Staotes. (In Canadian Geol. & Nat. v. 7, p. 20–34, illus. 1862)

LEIDY, Joseph. Report to the councils of Philadelphia on some of the insects injurious to our shade trees. Phila. 1862. 11 p.

LOSSING, B. J. American historical trees. (In Harper's Mag. v. 24, p. 721–40, illus. 1862)

NASH, Alanson. The culture of fruit in the mountain regions of New England, and the Middle and Southern states, with the geological formation. (In Amer. Inst. City of N. Y. Trans. 1862–63. p. 197–208)

VISCHER, Edward. Forest trees of California. San Francisco, 1862.

*WIED-NEUWIED, M. A. P. Prince von. Verzeichniss die auf seiner Reise in Nord-Amerika beobachteten Saugethiere. Berlin, 1862. 240 p. 4 pl.

From Archiv. für Naturgeschichte, ed. by Wiegmann. v. 27, p. 181–288, 1861 & v. 28, p. 65–190. 1862.

1863 AGASSIZ, Louis. Methods of study in natural history. Bost. Ticknor & Fields, 1863. viii, 319 p. illus. map. diagr.

Lectures delivered before the Lowell Institute.

First printed in the Atlantic Monthly, excepting last chapter. Numerous subseq. ed. 19th, Bost. Houghton, 1891.

BRACE, C. L. The races of the old world: a manual of ethnology. N. Y. C. Scribner, 1863. xv, [13]–540 p.

DANA, J. D. Manual of geology, treating of the principles of the science, with special reference to American geological history for the use of colleges, academies, and schools of science . . . illustrated by a chart of the world, and over 1000 figures, mostly from American sources. . . . Phila. T. Bliss & co., 1863. xvi, 798 p. illus. map.

Rev. in North Amer. Rev. v. 97, p. 372–86. Oct. 1863.

Subsequent editions.

DU CHAILLU, P. B. A catalogue of the . . . natural history collection formed by . . . during his travels in west equatorial Africa. Lond. 1863. 11 p.

DURAND, Elias. Vites boreali-Americanae. . . . (In Soc. Linn. Bordeaux. Actes. v. 24, p. 113–76. 1863)

HITCHCOCK, Edward. Reminiscences of Amherst College, historical, scientific, biographical and autobiographical. Northampton, Bridgeman & Childs, 1863. vii, [1], 412 p. 4 pl. map. port.

Rev. in Amer. J. Sc. v. 87, p. 148–49. Jan. 1864.

Rev. in Canadian Nat. n. s. v. 1, p. 337–54. 1864.

MICHENER, Ezra. Pennsylvania agricultural ornithology: insectivorous birds of Chester Co., Pa. (In Pennsylvania. Commissioner Agric. Rept. for 1863. p. 287–307)

186 species land birds enumerated.

PACKARD, A. S., Jr. A list of animals dredged near Caribou Island, southern Labrador during July & August, 1860. (In Canadian Nat. v. 8, p. 402–31. 1863)

PORCHER, F. P. Resources of the southern fields and forests, medical, economical and agricultural; being also a medical botany of the Confederate States, with practical information on the useful properties of the trees, plants and shrubs. Charleston, S. C. Evans & Cogswell, 1863. xxv, 601 p.

Works consulted, p. 1–4.

Another ed. Richmond, Va., West & Johnson, 1863. 2d ed. Revised & augmented. Charleston, S. C., Walker, Evans & Cogswell, 1869. xv, [1], 33 p.

ROBERTS, W. F. Reports . . . on the Shamokin coal lands, known as "Robert Gray," "Samuel Wetherill" tracts, and "Henry Clay" colliery. Bost. Wright & Porter, 1863. 16 p. plan.

Another ed. 1863. 21 p. plan.

STEVENS, R. P. Origin of the human race. (In Amer. Inst., City, N. Y. Trans. 1863–64. p. 432–38)

————. On the past and future topography of the United States. (In Amer. Geogr. & Statistical Soc. Proc. v. 1, p. 71–83. 1863)

*WIED-NEUWIED, M. A. P. Eine Frage an die Herren Botaniker uber die ursachen der schönen Herbstfärbung der Baumvegetation im nordlichen

America. Berlin, 1863. (In archiv. fur Naturgeschicte ed. Wiegmann. v. 29, p. 261–66)

WOOD, Alphonso. Leaves and flowers; or, Object lessons in botany, with a flora . . . N. Y. Barnes & Burr, 1863. 322 p. illus.

1864 ANON. The forest Arcadia of northern New York, embracing a view of its mineral, agricultural and timber resources. Bost. 1864. 224 p.

BLAKE, W. P. Notes on the geology and mines of Nevada Territory, Washoe silver region, United States. (In Geol. Soc. Quart. Jour. Lond. 1864. v. 20, p. 317–27, illus)

DANA, J. D. On parallel relations of the classes of Vertebrates, and on some characteristics of the Reptiles, Birds. . . . (In Edinburgh New Philos. Jour. v. 29, p. 75–102, 260–72. 1864)

————. A text-book of geology, designed for schools and academies. Phila. T. Bliss & co., 1864. 354 p. illus.
Rev. in Amer. J. Sc. v. 87, p. 147–48. Jan. 1864.

EGLOFFSTEIN, F. W. von. Contributions to the geology and physical geography of Mexico . . . together with a graphic description of an ascent of the volcano Popocatepetl. N. Y. Appleton, 1864. 40 p. map.

FISK, J. L. . . . Report of north overland expedition, for protection of immigrants from St. Cloud, Minnesota, via Forts Abercrombie and Benton, to the Rocky Mountains, Idaho . . . 1863. Wash. 1864. 39 p. (In U. S. 38th Cong., 1st sess., H. Ex. Doc. v. 9, no. 45) Serial no. 1189.

GRANT, W. T. Indigenous medicinal plants. Richmond, 1864. (In Confed. States Med. & Surg. Jour. v. 1, p. 84–6)

GUILD, W. H., Jr., and PERKINS, F. B. The Central Park, photographed by W. H. Guild, Jr., with descriptions and a historical sketch by F. B. Perkins. N. Y. 1864. 78 p. 51 pl. 4°.

HODGE, J. T. Union Pacific Railroad: report on the coal deposits in the Rocky Mountains. N. Y., W. C. Bryant & co., 1864. 20 p.

HUNT, E. B. On the origin, growth, substructure, and chronology of the Florida reef. Wash. 1864. (In U. S. Coast & Geod. Surv. Rept. for 1862. appx. 25, p. 241–48)

HUNTON, A. Indigenous remedies of the South. Richmond, Va., 1864. (In Confed. States Med. & Surg. Jour. v. 1, p. 106–8)

MARSH, G. P. Man and nature; or, Physical geography as modified by human action . . . N. Y. Scribner, 1864. 577 p. illus.
Several subsequent ed. 2d ed., 1869.

MARTIN, D. S. Minerals and the methods of studying them, a treatise for beginners, prepared for the benefit of the Metropolitan Fair. N. Y. 1864. 19 p.

RAFINESQUE, C. S. The complete writings of Constantine Schmaltz Rafinesque on recent and fossil conchology; ed. by W. G. BINNEY and TRYON, G. W. Jr. N. Y. Bailliere bros., 1864. 96+7 p. illus. pl.

*RICHTHOFEN, Ferdinand von. Reisebericht aus Californien. (In Geol. Gesell. Zeitschr. v. 16, p. 331–40, 606–10. 1864)

ROBERTS, W. F. Report . . . on the tract of coal land known as the "John Brady" tract, lying . . . in Shamokin, Pa. Bost. Wright & Potter, 1864. 12 p. 2 plans.

ROBERTS, W. F. and KROPFF, F. C. Report on the McCauley Mountain coal lands, Columbia Co., Pa. Bost. Wright & Potter, 1864. 13 p. 2 plans.

————. Report upon the Tomhicken mining property . . . in the Lehigh region of Pa. Bost. Rand & Avery, 1864. 12 p. 3 plans.

SILLIMAN, Benjamin, Jr. Report on the property of the Waverley Gold Mining Co., of Nova Scotia, with a general introduction on the gold region of Nova Scotia. Bost. Rand & Avery, 1864. 27 p.

————. Report on the property of the Arlington Coal Mining co., of Nova Scotia . . . Bost. Rand & Avery, 1864. 38, [2] p.

————. Report on the property of the Atlantic Gold Mining co., of Nova Scotia . . . Bost. Rand & Avery, 1864. 44 p. map.

————. Report on the property of the Chebucto Gold Mining co., of Nova Scotia, by John Campbell, with a sketch of the gold region of Nova Scotia, by B. S., Jr. Bost. Rand & Avery, 1864. 33 p.

————. Report on the property of the Colonial Gold co., of Nova Scotia . . . Bost. Rand & Avery, 1864. 35 p., map.

————. Report on the property of the Halifax Gold Mining co., of Nova Scotia . . . Bost. Rand & Avery, 1864. 27, [1] p.

SULLIVANT, W. S. Icones Muscorum: or, Figures and descriptions of most of those mosses peculiar to eastern North America which have not been heretofore figured . . . Cambridge, Mass., 1864. 216 p. 129 pl. 4°.

THOREAU, H. D. The Maine woods. Bost. Ticknor & Fields, 1864. 3 p. l, 328 p.
Numerous subsequent ed.

1865 AGASSIZ, Mrs. E. C. (Cary), and AGASSIZ, Alexander. Seaside studies in natural history; marine animals of Massachusetts Bay: Radiates. Bost. Ticknor & Fields, 1865. 6+155 p. illus.
2d ed. xi, 157 p. illus. 1871.

BAILEY, L. W., MATTHEW, G. F., and HARTT, C. F. Observations on the geology of southern New Brunswick, made principally

during the summer of 1864. Fredericton, N. B., 1865. 159 p. map.

Rev. on Can. Nat. n. s. v. 2, p. 232–39, 314–18, 1865.

BEHR, H. [H.] Heilmittel der Alt-Kalifornier. Berlin, 1865. (In Arch. für Path. Anat. v. 32, p. 73–94)

BLAKE, W. P. Annotated catalogue of principal mineral species hitherto recognized in California and the adjoining states and territories. (In Cal. State Agric. Soc. Trans. 1864–65. p. 337–56)

BOARDMAN, S. L. A general view of the agriculture and industry of the county of Kennebec of Maine, with notes upon its history and natural history. Augusta, 1865. 83 p.

Another ed. 1868. viii, 200 p. port.

BODLEY, R. L. Catalogue of plants contained in the herbarium of Joseph Clark, arranged according to the natural system. Cincinnati, R. P. Thompson, 1865. 47 p.

In Library of Surgeon General's office. Not pub.

BROWN, J. T. Report on the property of the Cabarrus Gold Mining Company, Cabarrus Co., N. C. 1865. 15 p. map.

COPE, E. D. Sketch of the primary groups of Batrachia salienta. London, 1865. (In Nat. Hist. Rev. p. 97–120)

COWAN, Frank. Curious facts in the history of insects, including spiders and scorpions . . . Phila. Lippincott, 1865. 396 p.

See Weiss, H. B., F. C. (In Ent. News. v. 37, p. 212–14. July, 1926)

*CREDNER, Hermann. Geognostische Skizze der Umgegend von New York. (In Deut. Geol. Gesell. Zeitschr. v. 17, p. 388–98. 1865)

————. Die geologischen Verhaltnisse von Californien. (In Neues Jahrbuch Mineralogie. Stuttgart, 1865. p. 729–32)

DICKERSON, M. W. Report of the geological survey of 2000 acres of land, Cameron County, Pa. 1865. 8 p.

DODGE, J. R. West Virginia: its farms and forests, mines and oil wells. Phila. Lippincott & co., 1865. 276 p.

FOSTER, J. W., and KIMBALL, J. P. Iron Cliffs Co., Geology and metallurgy of the iron ores of Lake Superior. . . . N. Y. Bryant, 1865. 97 p. maps.

HAMLIN, C. E. Birds of Kennebec County, Maine. (In Maine Board Agric. Rept. 1865. p. 168–73)

HARPER, Lewis. Geological report to Samuel Watkins & co., on their lands in Tennessee. Nashville, 1865. 15 p.

————. Geological report to the Tennessee Mountain Petroleum and Mining Company on their lands in Tennessee. Louisville, 1865. 20 p.

————. Geological report on the petroleum lands and leases of Capt. I. H. Thickstun of the table land of the Cumberland Mountains. Nashville, 1865. 12 p.

————. Geological section across the Cumberland Mountains of White to Roane County, Tennessee. Nashville, 1865. 29 p.

LESLEY, J. P. Report of a reconnaissance made in April, 1865, of the coal property of the Catawisa R. R. co., Phila. 1865.

MULLAN, John. Miners and travelers' guide to Oregon, Washington, Idaho, Montana, Wyoming and Colorado, via the Missouri and Columbia Rivers. N. Y. Franklin, 1865. 153 p. map.

OWEN, R. E., and COX, E. T. Report on the mines of New Mexico. Wash. 1865. 60 p.

Abstract in Amer. J. Sc. ser. 2, v. 40, p. 89–92. 1865.

PAIGE, E. W. Catalogue of the flowering plants of Schenectady County. Albany, 1865. 48 p.

PARKER, N. H. Parker's geological map of the state of Missouri. Phila. & St. Louis, 1865. Scale 18 miles to the inch.

SHEPARD, C. U. A description of the emery-mine of Chester, Hampden County, Mass. . . . London, 1865. 16 p.

SHEPHERD, Forrest, & CASSELS, J. L. Reports on oil lands in Summit County, Ohio, by . . . with other documents and map of the property . . Celeveland, Nevins', 1865. 12 p. fold map.

In Library of Congress.

SILLIMAN, Benjamin, Jr. Report upon the oil property of the Pacific Coast Petroleum Company of New York—situated in San Luis Obispo County, California. N. Y. W. A. Wheeler, 1865. 24 p. map.

————. . . . United Reese River Silver Mining Company mines located in Austin, Lander County, Nevada. Bost. Wright & Potter, 1865. 29 p.

————. A description of the recently discovered petroleum region in California, with a report on the same by . . . N. Y. Francis & Loutrel, printers, 1865. 24, [1] p. fold. diagr.

In Libr. U. S. Geol. Surv.

————. Description of the Reveille Quartz Lode in Humboldt, state of Nevada. . . . Paris, Briére, 1865. 15 p.

STIMPSON, William. Review of the northern Buccinums and remarks on some other northern marine Mollusks. (In Canadian Naturalist. v. 2, p. 364–89. 1865)

TRIMBLE, I. P. A treatise on the insect enemies of fruit and fruit trees . . . the Curculio and the apple moth. N. Y. 1865. 139 p. illus. 11 pl.

Rev. in Mag. Hort. & Bot. v. 31, p. 193–97. 1865.

WHITE, C. A. The soils of Iowa and their origin. (In Iowa State Agric. Soc. Rept. Secretary for 1865. p. 245–67)
Rd Sept. 29, 1865.

*WIED-NEUWIED, M. A. P. Prince von. Verzeichniss der Reptilien, welche auf einer Reise im Nordlichen Amerika beobachtet wurden. 1865. 141 p. 7 col. pl. (In Acad. Caesaria Leopoldina-Carolina. Nova-Acta. v. 22, pt. 1)

WINCHELL, Alexander. The soils and sub-soils of Michigan; in an address delivered before the executive committee of the Michigan State Agricultural Society in Representative Hall, at Lansing, Thursday evening, January 19, 1865. . . . Lansing, Mich., 1865. 30 p.

————. The Grand Traverse region; a report on the geological and industrial resources of the counties of Antrim, Grand Traverse, Benzire and Leelanaw in the Lower Peninsula, Michigan. Ann Arbor, Dec. 1865. 97 p.

WINSLOW, C. F. The cooling globe; or, The mechanics of geology. Bost. Walker, Wise & co., 1865. 63 p.

CHRONOLOGICAL TABLES OF THE PUBLICATIONS OF THE DIFFERENT INSTITUTIONS CONTAINED IN THIS WORK

Arranged by Decades: 1 to 10

Abbreviations Used

A	—Annals	J	—Journal
Ac	—Account	M	—Memoirs
Ad	—Address	M.C.	—Miscellaneous Collections
Agr	—Agriculture	Mem	—Memorial
Bot	—Botany	Min	—Mineralogy
Bul	—Bulletin	N	—Narrative
C	—Contributions	P	—Proceedings
Cat	—Catalogue	Pa	—Papers
Ch	—Charter	Pal	—Palaeontology
Cir	—Circular	R	—Report
Col	—Collections	Rem	—Reminiscences
Con	—Constitution	S	—Supplement
D	—Discourse	Sc	—Science(s)
Dir	—Directions	S.C.	—Smithsonian Contributions to Knowledge
Dis	—Discovery		
Doc	—Documents	St	—Statement
G	—Geology	Syn	—Synopsis
Gu	—Guide	T	—Transactions
In	—Index	Z	—Zoology

CHRONOLOGICAL TABLES OF PUBLICATIONS

Decade 1.—1769–1779

Institution	69	70	71	72	73	74	75	76	77	78	79
Amer. Phil. Soc. (1769)			T 1								
Charleston Mus. (1773)					Cir						

CHRONOLOGICAL TABLES OF PUBLICATIONS

Decade 2.—1780–1789

Institution	80	81	82	83	84	85	86	87	88	89
Amer. Phil. Soc. (1769)							T 2			
Charleston Mus. (1773)										
Amer. Acad. A. & Sc. (1780)						M 1				
Peale's Mus. (1784)										
Univ. Sate N. Y. (1787)										

CHRONOLOGICAL TABLES OF PUBLICATIONS

Decade 3.—1790–1799

Institution	90	91	92	93	94	95	96	97	98	99
Amer. Phil. Soc. (1769)				T 3						T 4
Charleston Mus. (1773)										
Amer. Acad. A. & Sc. (1780)				M 2:1						
Peale's Mus. (1784)							Cat			
Univ. State N. Y. (1787)										
Soc. Prom. Agr. A. & Manuf. (1791)			T 1:1		T 1:2				T 1:3	T 1:4
Med. Repos. (1797)								1	1, 2	2, 3
Amer. Min. Soc. (1798)									Cir	
Conn. Acad. (1799)										

CHRONOLOGICAL TABLES OF PUBLICATIONS

Decade 4.—1800–1809

Institution	00	01	02	03	04	05	06	07	08	09
Amer. Phil. Soc. (1769)			T 5		T 6:1					T 6:2
Charleston Mus. (1773)										
Amer. Acad. A. & Sc. (1780)					M 2:2					M 3:1
Peale's Mus. (1784)						Gu				
Univ. State N. Y. (1787)										
Med. Repos. (1797)	3, 4	4, 5	5, 6	6, 7	7, 8	8, 9	9, 10	10, 11	11, 12	12, 13
Conn. Acad. (1799)										
Elgin Bot. Gard. (1801)							Cat			
Sibley's Exped. (1803)							R			
Dunbar's Exped. (1804)							R			
Lewis & Clark Exped. (1804)							R	J		
N. Y. Hist. Soc. (1804)						Con				
Phila. Med. & Phys. Jour. (1804)					1:1	1:2 2:1	S 1 2:2	S 2	3:1	S 3
Soc. Prom. Useful Arts (1804)								T 2		
Cambridge Bot. Gard. (1805)						Doc				
Pike's Exped. (1805)								Ac		
Linn. Soc. Phila. (1806)								D		

Decade 5.—1810–1819

Institution	10	11	12	13	14	15	16	17	18	19
Amer. Phil. Soc. (1769)									Tns.1	
Charleston Mus. (1773)										
Amer. Acad. A. & Sc. (1780)						M 3:2			M 4:1	
Peale's Mus. (1784)							Ad			
Univ. St. N. Y. (1787)										
Med. Repos. (1797)	13, 14	14, 15	15, 16	16	17	17	18	18, 19	19	20
Conn. Acad. A. & Sc. (1799)	M 1:1	M 1:2		M 1:3			M 1:4			
Elgin Bot. Gard. (1801)		Cat St								
Lewis & Clark Exped. (1804)					R					
N. Y. Hist. Soc. (1804)		Col 1			Col 2					
Soc. Prom. Useful Arts (1804)					T 3		T 4:1			T 4:2
Cambridge Bot. Gard. (1805)									Cat	
Pike's Exped. (1805)	R	R								
Amer. Med. & Phil. Register (1810)	1	1, 2	2, 3	3, 4	4					
Amer. Miner. Jour. (1810)	1:1	1:2	1:3		1:4					
Acad. Nat. Sc. Phila. (1812)								J 1:1	J 1:2	
Lit. & Phil. Soc. S. C. (1813)					Ad					
Linn. Soc. New Eng. (1814)								R		
Lit. & Phil. Soc. N. Y. (1814)						T 1			Ch	

CHRONOLOGICAL TABLES OF PUBLICATIONS

Decade 5.—1810–1819 (cont.)

Institution	10	11	12	13	14	15	16	17	18	19
Columbian Inst. Prom. A. & Sc. (1816)								Ad		
Amer. Mthly Mag. & Crit. Rev. (1817)								1, 2	2, 3, 4	4
Lyc. Nat. Hist. N. Y. (1817)								Con		
Wash. Bot. Soc. (1817)								Con		Cat
Amer. J. Sc. (1818)									1:1–2	1:3–4
Troy Lyc. Nat. Hist. (1818)										Pa
Western Mus. Soc. (1818)									Ad	D
Long Exped. to Rockies (1819)										J

Decade 6.—1820–1829

Institution	20	21	22	23	24	25	26	27	28	29
Amer. Phil. Soc. (1769)						T ns. 2				
Charleston Mus. (1773)										
Amer. Acad. A. & Sc. (1780)		M 4:2								
Peale's Mus. (1784)					1					
Univ. St. N. Y. (1787)										
Med. Repos. (1797)	20, 21	21, 22	22	23	23					
Conn. Acad. (1799)										
Elgin Bot. Gard. (1801)										
N. Y. Hist. Soc. (1804)		Col 3								
Cambridge Bot. Gard. (1805)					Cat					
Acad. Nat. Sc. Phila. (1812)		J 2:1	J 2:2	J 3:1	J 3:2 J 4:1	J 4:2 J 5:1	J 5:2	J 5:2 J 6:1	J 6:1	J 6:1
Lit. & Phil. Soc. S. C. (1813)										
Linn. Soc. New Eng. (1814)										
Lit. & Phil. Soc. N. Y. (1814)						T 2:1				
Columbian Inst. A. & Sc. (1816)									Ad	
Lyc. Nat. Hist. N. Y. (1817)	D			Ch	A 1:1	A 1:2	Cat Ad, D		A 2	Mem
Wash. Bot. Soc. (1817)										

CHRONOLOGICAL TABLES OF PUBLICATIONS

Decade 6.—1820–1829 (cont.)

Institution	20	21	22	23	24	25	26	27	28	29
Amer. J. Sc. (1818)	2	3, 4:1	4:2, 5	5, 6 7:1	7:2, 8	9 10:1	10:2 11	12 13:1	13:2 14, 15	15:2 16, 17
Troy Lyc. Nat. Hist. (1818)	Pa									
Western Mus. Soc. (1818)	D									
Amer. Geol. Soc. (1819)	Pa	Pa	Pa		Pa					
Long Exped. to Rockies (1819)	J			R						
Cass Exped. (1820)		N								
Prov. Franklin Soc. (1821)				Con						Dir
Amherst Coll. Cab. (1822)										Cat
Maryland Acad. Sc. (1822)										
N. Y. Med. & Phys. Jour. (1822)			1	2	3	4	5			
Western Quart. Rept. (1822)			1	2						
Albany Lyc. Nat. Hist. (1823)					Ad					
Bost. J. Phil. & Arts (1823)				1	1, 2	2, 3	3			
Long Exped. St. Peter's (1823)					R					
Lyc. Berkshire Med. Inst. (1823)				D						
Newburgh Lyc. (1823)				Ad						
N. C. Geol. Surv. (1823)					R	R		R	R	
Albany Inst. (1824)						R				

CHRONOLOGICAL TABLES OF PUBLICATIONS

Decade 6.—1820–1829 (cont.)

Institution	20	21	22	23	24	25	26	27	28	29
Transylvania Bot. Gard. (1824)					Ch Cat					
S. C. Geol. Surv. (1824)							R			
Bot. Club Wash. (1825)										
Chester Co. Cab. (1826)							Ad		R 1	R 2
Maclurian Lyc. Phila. (1826)								C 1:1–2		C 1:3
Del. Acad. Nat. Sc. (1827)										
Western J. Med. & Phys. Sc. (1827)								1	2	3
Transylvania J. Med. (1828)									1	2

CHRONOLOGICAL TABLES OF PUBLICATIONS

Decade 7.—1830–1839

Institution	30	31	32	33	34	35	36	37	38	39
Amer. Phil. Soc. (1769)	T ns. 3				T ns. 4			T ns. 5	P 1	P 1 T ns. 6
Charleston Mus. (1773)										
Amer. Acad. A. & Sc. (1780)				M ns. 1						
Univ. St. N. Y. (1787)		R 44	R 45	R 46		R 48		R 50	R 51	R 52
Conn. Acad. (1799)										
Cambridge Bot. Gard. (1805)										
Acad. Nat. Sc. Phila. (1812)	J 6:2	J 6:2			J 7:1			J 7:2		J 8:1
Lit. & Phil. Soc. S. C. (1813)										
Columbian Inst. Prom. Sc. (1816)										
Lyc. Nat. Hist. N. Y. (1817)	In					Con	A 3			R
Amer. J. Sc. (1818)	17:2 18 19:1	19:2 20 21:1	21:2 22 23:1	23:2 24 25:1	25:2 26 27:1	27:2 28 29:1	29:2 30 31:1	31:2 32 33:1	33:2 34 35:1	35:2 36 37:1
Troy Lyc. Nat. Hist. (1818)										
Prov. Franklin Soc. (1821)										
Amherst Coll. Cab. (1822)										
Maryland Acad. Sc. (1822)								T 1		
N. C. Geol. Surv. (1823)										
Albany Inst. (1824)	T 1			T 2						

Decade 7.—1830–1839 (cont.)

Institution	30	31	32	33	34	35	36	37	38	39
S. C. Geol. Surv. (1824)										
Bot. Club Wash. (1825)	Cat									
Chester Co. Cab. (1826)	R 3	R 4	R 5 Con	R 6	R 7	R 8 D, Ad	R 9	R 10	R 11	Ad R
Maclurian Lyc. (1826)	R									
Del. Acad. Nat. Sc. (1827)				A			Con			
Western J. Med. (1827)				7	8	8, 9	9			
Transylvania J. Med. (1828)	3	4	5	6	7	8	9	10		
Bost. Soc. Nat. Hist. (1830)					J 1:1	J 1:2	J 1:3	J 1:4	J 2:1	J 2:2–4
Mass. Geol. Surv. (1830)			R	R					R	
Amer. Bot. Reg. (1831)		1								
Monthly Amer. J. Geol. (1831)		1	1							
Schoolcraft Exped. (1831)			R							
Tennessee Geol. Surv. (1831)		Ad	R 1	R 2		R 3		R 4		
Virginia Hist. Soc. (1831)				Col 1						
Antiq. Soc. Ark. (1832)										
Geol. Soc. Pa. (1832)			Cir	R	Con T 1:1	T 1:2				
N. Y. St. Agr. Soc. (1832)										

CHRONOLOGICAL TABLES OF PUBLICATIONS

Decade 7.—1830–1839 (cont.)

Institution	30	31	32	33	34	35	36	37	38	39
Schoolcraft & Allen Exped. (1832)					J, N					
Delaware Co. Inst. (1833)										
Essex Co. Nat. Hist. Soc. (1833)							J 1:1			J 1:2
Maryland Geol. Surv. (1833)					R	R	R	R	R	R
U. S. Naval Lyc. (1833)						R				
Advocate Sc. (1834)					1	1				
Featherstonhaugh Surv. Mo. R. (1834)						R				
Conn. Geol. Surv. (1835)								R		
Dodge Exped. (1835)							R			
Featherstonhaugh Surv. Coteau (1835)							R			
Mag. Hort. & Bot. (1835)						1	2	3	4	5
Nat. Hist. Soc. Hartford (1835)							T 1			
N. J. Geol. Surv. (1835)							R	R	R	
Va. Geol. Surv. (1835)							R	R	R	R
Western Acad. Nat. Sc. Cincinnati (1835)										
Williams Coll. Lyc. Nat. Hist. (1835)										
Georgia Geol. Surv. (1836)							R			
Maine Surv. (1836)								2 R	2 R	2 R

Decade 7.—1830–1839 (cont.)

Institution	30	31	32	33	34	35	36	37	38	39
Nat. Hist. Surv. N. Y. (1836)							R	R 1	R 2	R 3
Nicollet's Explor. (1836)										
Penn. Geol. Surv. (1836)							R 1		R 2	R 3
Western Acad. Nat. Sc. St. Louis (1836)								Con		
U. S. Commissioner Pat. Agric. Repts. (1836)										
Delaware Geol. Surv. (1837)										R
Harvard Nat. Hist. Soc. (1837)										
Indiana Geol. Surv. (1837)									R	R
Michigan Geol. Surv. (1837)									R	R
Ohio Geol. Surv. (1837)								R	R	R
Univ. Mich. Mus. (1837)										
Zool. & Bot. Surv. Mass. (1837)									R	R
Wilkes Explor. Exped. (1838)						R	Ad		R	
Agric. Hort. & Bot. Soc. Jefferson Coll. (1839)										
N. H. Geol. Surv. (1839)										
Owen's Surv. Iowa, Wis. & Ill. (1839)										
R. I. Geol. Surv. (1839)										

CHRONOLOGICAL TABLES OF PUBLICATIONS

Decade 8.—1840–1849

Institution	40	41	42	43	44	45	46	47	48	49
Amer. Phil. Soc. (1769)	P 1	P 2 T ns. 7	P 2	P 2,3,4 T ns. 8	P 4	P 4	P 4 T ns. 9	P 4	P 5	P 5
Charleston Mus. (1773)							P 1	P 1	P 1–2	P 2
Amer. Acad. A. & Sc. (1780)							M ns. 2		M ns. 3	M ns. 4:1
Univ. St. N. Y. (1787)		R 54	R 55	R 56	R 57	R 58	R 59	R 60		R 62
Conn. Acad. (1799)										
Cambridge Bot. Gard. (1805)		P 1	P 1	P 1	P 2	P 2	Cat P 3	P 3	P 4	P 4
Acad. Nat. Sc. Phila. (1812)			J 8:2					J ns. 1:1	J ns. 1:2	J ns. 1:3
Lyc. Nat. Hist. N. Y. (1817)							D		R, A 4	
Amer. J. Sc. (1818)	38, 39	40, 41	42, 43	44, 45	46, 47	48, 49	51, 52	50, 53, 54	55, 56	57, 58
Troy Lyc. Nat. Hist. (1818)										
Prov. Franklin Soc. (1821)						P 1, Cat				
Amherst Coll. Cab. (1822)										
N. C. Geol. Surv. (1823)										
Maryland Acad. Sc. (1822)										
Albany Inst. (1824)										
S. C. Geol. Surv. (1824)				R	R				R	

Decade 8.—1840–1849 (cont.)

Institution	40	41	42	43	44	45	46	47	48	49
Chester Co. Cab. (1826)		D	R 12	R 13						R 14
						Ad				
Bost. Soc. Nat. Hist. (1830)	J 3	P 1	P 1 J 4:1–2	P 1 J 4:3	P 1 J 4:4	P 1–2 J 5:1–2	P 2 J 5:3	P 2 J 5:4	P 3 J 6:1	P 3 J 6:1
Mass. Geol. Surv. (1830)		R			R					
Tennessee Geol. Surv. (1831)	R 5	R 6			R 7		R 8		R 9	
Antiq. Soc. Ark. (1832)			R							
N. Y. St. Agric. Soc. (1832)		T 1	T 2	T 3		T 5	T 6	T 7	T 8	T 9
Delaware Co. Inst. (1833)										
Essex Co. Nat. Hist. Soc. (1833)										
Maryland Geol. Surv. (1833)	R	R								
U. S. Naval Lyc. (1833)										
Conn. Geol. Surv. (1835)			R							
Mag. Hort. & Bot. (1835)	6	7	8	9	10	11	12	13	14	15
Nat. Hist. Soc. Hartford (1835)										
N. J. Geol. Surv. (1835)	R									
Va. Geol. Surv. (1835)	R	R	R							
Western Acad. Nat. Sc. Cincin. (1835)										Cat
Williams Coll. Lyc. (1835)										

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Decade 8.—1840–1849 (cont.)

Institution	40	41	42	43	44	45	46	47	48	49
Maine Geol. Surv. (1836)			Z 1,3,4	Z 5	Z					
Nat. Hist. Surv. N. Y. (1836)	R 4	R 5	Min G 2,3	Bot 1,2 G 1,4	2, 6		Agr 1	Pal 1		Agr 2
Nicollet's Explor. (1836)				R		R				
Penn. Geol. Surv. (1836)	R 4	R 5	R 6							
U. S. Commis. Pat. (1836)						R				
Western Acad. St. Louis (1836)										
Delaware Geol. Surv. (1837)		R								
Harvard Nat. Hist. Soc. (1837)						Cat			Ad	
Indiana Geol. Surv. (1837)										
Michigan Geol. Surv. (1837)	R	R	R	R	R					
Ohio Geol. Surv. (1837)			Cat							
Univ. Mich. Mus. (1837)										
Zool. & Bot. Surv. Mass. (1837)	R	2 R					R			
Wilkes Explor. Exped. (1838)		R	Syn		N 1–5		6		7, (8), 9	10
Agric. Hort. Bot. Soc. (1839)		Ad	Ad							
N. H. Geol. Surv. (1839)		R	R		R	R				
Owen's Surv. Iowa, Wis. & Ill. (1839)	R				R					

Decade 8.—1840–1849 (cont.)

Institution	40	41	42	43	44	45	46	47	48	49
R. I. Geol. Surv. (1839)	R									
Assoc. Amer. Geol. (1840)		P	P	R 1–3	P	P	P	P		
Nat. Inst. Prom. Sc. (1840)	P 1:1 Con	P 1:2 D	P 1:2	P 1:3	P 1:3 Mem	P 1:3 A				
Northern Acad. A. & Sc. (1841)			R 1	R 2						
Amer. Ethnol. Soc. (1842)						T 1			T 2	
Bot. Soc. Wilmington (1842)					Cat					
Fremont's Exped. (1842)				R		R				
Lynn Nat. Hist. Soc. (1842)							Cat			
Fremont's Exped. Cal. (1843)						R				
N. Y. St. Cab. Nat. Hist. (1843)								R 1	R 2	R 3
Portland Soc. Nat. Hist. (1843)										
Allen's Exped. (1844)							R			
Linn. Assoc. Pa. Coll. (1844)					1	1, 2	2, 3	3, 4	4	
Mo. Hist. & Phil. Soc. (1844)						A				
Vermont Geol. Surv. (1844)						R 1	R 2	R 3	R 4	
Abert's Explor. Arkansas (1845)							R			
Amer. Quart. J. Agric. (1845)						1, 2	3, 4	5, 6		
Cleve. Acad. Nat. Sc. (1845)										

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Decade 8.—1840–1849 (cont.)

Institution	40	41	42	43	44	45	46	47	48	49
Fremont's Exped. Cal. (1845)									R	R
Abert's Exam. New Mexico (1846)									R	
Charleston Med. Jour. (1846)							1	2	3	4
Emory's Reconn. (1846)									R	
Ohio Agric. Repts. (1846)							R 1	R 2	R 3	R 4
Smithsonian Inst. (1846)							R 1	R 2	S.C. 1 R 3	R 4
Wislizenus' Tour (1846)									R	
Lynch's Dead Sea Exped. (1847)										R
Owen's Surv. Chippewa Land Dist. (1847)								R	R	
U. S. Surv. Michigan Mineral Lands (1847)								R		R
Alabama Geol. Surv. (1848)										
Amer. Assoc. Adv. Sc. (1848)										P 1
Essex Inst. (1848)										P 1
Owen's Surv. Wis., Iowa & Minn. (1848)										
U. S. & Mexican Boundary Surv. (1848)										
Foster & Whitney Surv. (1849)										

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Amer. Phil. Soc. (1769)	P 5	P 5	P 5	P 5 T n. s. 10	P 6	P 6	P 6	P 6	P 6	P 7
Charleston Mus. (1773)										
Amer. Acad. A. & Sc. (1780)	P 2 M ns. 4:2	P 2	P 2, 3	P 3 M ns. 5:1	P 3	P 3 M ns. 5:2	P 3	P 3, 4 M ns. 6:1	P 4 M ns. 6:2	P 4
Univ. St. N. Y. (1787)		R 64	R 65	R 66	R 67					
Conn. Acad. (1799)										
Cambridge Bot. Gard. (1805)										
Acad. Nat. Sc. Phila. (1812)	P 5 J ns. 1:4 & 2:1	P 5	P 6 J ns. 2:2	P 6 J ns. 2:3	P 7 J ns. 2:4	P 7 J ns. 3:1–2	P 8 J ns. 3:3	P 9	P 10 J ns. 3:4 & 4:1	P 11 J ns. 4:2
Lyc. Nat. Hist. N. Y. (1817)		D, A 5	A 5	A 6	A 6	A 6	A 6		A 6, 7	A 7
Amer. J. Sc. (1818)	59 60	61 62	63 64	65 66	67 68	69 70	71 72	73 74	75 76	77 78
Troy Lyc. Nat. Hist. (1818)	Con									
Franklin Soc. Prov. (1821)										
Amherst Coll. Cab. (1822)										
Maryland Acad. Sc. (1822)										

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Decade 9.—1850–1859 (cont.)

Institution	50	51	52	53	54	55	56	57	58	59
N. C. Geol. Surv. (1823)			R			R	R	R	R	
Albany Inst. (1824)			T 2			T 3			T 4	
S. C. Geol. Surv. (1824)							R		R	R
Chester Co. Cab. (1826)										
Bost. Soc. Nat. Hist. (1830)	P 3 J 6:1–2	P 4	P 4 J 6:3	P 4 J 6:3 Ad	P 4, 5 J 6:4	P 5	P 5, 6	P 6 J 6:4	P 6	P 6, 7 J 7:1
Mass. Geol. Surv. (1830)				R					R, Cat	Cat
Tenn. Geol. Surv. (1831)	R 10						R		R	
N. Y. St. Agric. Soc. (1832)	T 10	T 11	T 12	T 13	T 14	T 15	T 16	T 17	T 18	T 19
Delaware Co. Inst. (1833)										
Essex Co. Nat. Hist. Soc. (1833)			J 1:3							
Maryland Geol. Surv. (1833)										
U. S. Naval Lyc. (1833)							Cat			
Mag. Hort. & Bot. (1835)	16	17	18	19	20	21	22	23	24	25
N. J. Geol. Surv. (1835)						R	R	2 R		
Western Acad. Cincin. (1835)			Cat							
Williams Coll. Lyc. (1835)			Cat			Ad	R			
Maine Geol. Surv. (1836)										

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Institution	50	51	52	53	54	55	56	57	58	59
Nat. Hist. Surv. N. Y. (1836)		Agr 3, 4	Pal 2		Agr 5					Pal 3
Penn. Geol. Surv. (1836)									R, 3 v	
U. S. Commiss. Pat. (1836)		R	R	R		R	R	R	R	R
Harvard Nat. Hist. Soc. (1837)				Ad						
Indiana Geol. Surv. (1837)					R					
Michigan Geol. Surv. (1837)										
Wilkes Explor. Exped. (1838)		11	12, 13	14	15, 16 19				8, 20 23	17
Nat. Inst. Prom. Sc. (1840)	R					Cat P ns. 1:1	P ns. 1:2	P ns. 1:3		
Amer. Ethnol. Soc. (1842)		T 3								
N. Y. St. Cab. Nat. Hist. (1843)	R 4	R 5	R 6	R 7 Cat	R 8	R 9	R 10	R 11	R 12	R 13
Portland Soc. Nat. Hist. (1843)		Con								
Vermont Geol. Surv. (1844)	Ad						R	R	R	R
Cleve. Acad. Nat. Sc. (1845)		P	P	P	P	P	P	P	P	P
Charleston Med. Jour. (1846)	5	6			9	10				
Ohio Agric. Repts. (1846)		6				10		12	13	14

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Institution	50	51	52	53	54	55	56	57	58	59
Smithsonian Inst. (1846)	R 5	R 6 S.C. 2	R 7 SC 3, 4 M.C. 2	R 8 S.C. 5	R 9 S.C.6	R 10 S.C. 7	R 11 S.C. 8 M.C. 1	R 12 S.C. 9	R 13 S.C. 10 M.C. 3	S.C.11 R 14 MC 1, 3
Alabama Geol. Surv. (1848)	R 1								R 2	
Amer. Assoc. Adv. Sc. (1848)	P 2, 3	P 4, 5	P 6			P 8	P 7, 9	P 10	P 11	P 12
Essex Inst. (1848)	P 1	P 1	P 1	P 1	P 1	P 1	P 1, 2	P 2	P 2	P 2
Owen's Surv. Wis., Ia. & Minn. (1848)			R							
U. S. & Mexican Bdry. Surv. (1848)			R		N	R		R	R	R
Foster & Whitney Surv. (1849)	R 1	R 2								
Gilliss Exped. (1849)						R	R			
Marcy's Exped. (1849)	R									
Pope's Explor. Minn. (1849)	R									
Reconn. Routes (1849)	R									
Simpson's Surv. (1849)	2 R									
Stansbury's Explor. (1849)			R							
U. S. Surv. Cal. & Ore. (1849)	R	R								
U. S. Surv. Creek Bdry. (1849)									R	
Ann. Sc. Disc. (1850)	1	2	3	4	5	6	7	8	9	10
Derby's Reconn. (1850)			2 R							

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Institution	50	51	52	53	54	55	56	57	58	59
Mississippi Geol. Surv. (1850)					R			R	R	
Herndon & Gibbon Exped. (1851)				R	R					
Illinois Geol. Surv. (1851)				R				R		
Lee's Dolphin Exped. (1851)					R					
Sitgreaves' Zuni Exped. (1851)				R						
Soc. Adv. Nat. Sc. Louisville (1851)										Con
Wis. St. Agric. Soc. (1851)			T 2	T 3	T 4	T 4				
Annals Sc. (1852)			1	1, 2	2					
Kane's Exped. (1852)					N	R	N			
Marcy's Explor. Red River (1852)				R						
Perry's U. S. Japan Exped. (1852)							R, 3v.			
Cal. Acad. Nat. Sc. (1853)					P 1	P 1	P 1	P 1	P 2	P 2
Cal. Geol. Surv. (1853)				R	R	R	R			
Elliott Soc. Nat. Hist. (1853)				P 1	P 1	P 1	P 1	P 1 Con	P 1	P 2 J 1
Flint Inst. (1853)								Con		
Florida Surv. (1853)					R					
Illinois St. Agric. Soc. (1853)				T 1	T 1	T 1	T 2	T 2	T 3	T 3, 4
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Mo. Geol. Surv. (1853)					R	R 1, 2		R		2 R
New Orleans Acad. Sc. (1853)				P 1	P 1				R	Con
Pacific RR. Surv. (1853)						1, 2	3–5	6–8	9	10, 11
Page's Explor. (1853)							R			
Rodgers & Ringgold Exped. (1853)								N	R	
Wisconsin Geol. Surv. (1853)					R	R	R		2 R	
Kentucky Geol. Surv. (1854)							R 1	R 2,3		
Marcy's Explor. Big Wichita (1854)							R			
Pottsville Sc. Assoc. (1854)						Bul				
Iowa Geol. Surv. (1855)							R		Pal 1	
Pope's Explor. (1855)								R		
Warren's Sioux Exped. (1855)							R			
Wisconsin Nat. Hist. Soc. (1855)										
Acad. Sc. St. Louis (1856)								T 1	T 1	T 1
Bryan's Exped. (1856)								R		
Chicago Acad. Sc. (1856)										
Warren's Explor. Dacotah & Nebraska (1856)									R	
Cincinnatus (1856)							1	2	3	4

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Institution	50	51	52	53	54	55	56	57	58	59
Arkansas Geol. Surv. (1857)									R 1	
Ives' Exped. (1857)										R
Michler Exped. (1857)										
Northwest Boundary Surv. (1857)										
Illinois Nat. Hist. Soc. (1858)										
Mullan's Exped. (1858)										
Simpson's Utah Exped. (1858)										R
Texas Geol. Surv. (1858)										R
Wyoming Hist. & Geol. Soc. (1858)									P 1	
Ent. Soc. Pa. (1859)										
Macomb. Exped. (1859)										
Minn. Geol. Surv. (1859)										
Mus. Comp. Zool. (1859)										R
Raynolds' Exped. (1859)										
Wilmington Inst. (1859)										R
Zool. Soc. Phila. (1859)										Con

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Amer. Phil. Soc. (1769)	P 7 T ns. 11	P 8	P 9	P 9 T ns. 12	P 9	P 10	T ns. 13, pub. 1869
Charleston Mus. (1773)							
Amer. Acad. A. & Sc. (1780)	P 4, 5 M ns. 7	P 5 M ns. 8:1	P 5, 6	P 6 M ns. 8:2	P 6	P 6, 7	M ns. 9, pub. 1867–73
Conn. Acad. (1799)							T 1, pub. 1866
Cambridge Bot. Gard. (1805)							
Acad. Nat. Sc. Phila. (1812)	P 12 J ns. 4:3–4	P 13	P 14 J ns. 5:1–2	P 15 J ns. 5:3–4	P 16	P 17	J ns. 6, pub. 1866
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Amer. J. Sc. (1818)	79, 80	81, 82	83, 84	85, 86	87, 88	89, 90	
Prov. Franklin Soc. (1821)							
Amherst Coll. Cab. (1822)			Cat	Rem			
Maryland Acad. Sc. (1822)							
N. C. Geol. Surv. (1823)	3 R	R					Curtis' Bot., 1867
Albany Inst. (1824)					T 4		T 5, 1867
S. C. Geol. Surv. (1824)	2 R						
Chester Co. Cab. (1826)							

Decade 10.—1860–1865 (cont.)

Institution	60	61	62	63	64	65	Remarks
Bost. Soc. Nat. Hist. (1830)	P 7 J 7:1–2	P 7, 8 J 7:2–3	P 8, 9 J 7:3	P 9 J 7:4 M 1:1	P 9 M 1:1	P 9, 10 M 1:1 R	M 1:1–4, 1866–69
Mass. Geol. Surv. (1830)						R	
Tenn. Geol. Surv. (1831)	R						Final R, 1869
N. Y. St. Agric. Soc. (1832)	T 20	T 21	T 22	T 23	T 24	T 25	
Delaware Co. Inst. (1833)			Cat				
Maryland Geol. Surv. (1833)	R		R				
Mag. Hort. & Bot. (1835)	26	27	28	29	30	31	
N. J. Geol. Surv. (1835)					R	R	
Maine Geol. Surv. (1836)			R	R			
Nat. Hist. Surv. N. Y. (1836)		Pal 3					
U. S. Commiss. Pat. (1836)	R	R	R	R	R	R	
Indiana Geol. Surv. (1837)			R				
Harvard Nat. Hist. Soc. (1837)							
Michigan Geol. Surv. (1837)		R					
Univ. Mich. Mus. (1837)		Cat		R			
Wilkes Explor. Exped. (1838)			17				Last of 17 pub. 1874
Amer. Ethnol. Soc. (1842)							
N. Y. St. Cab. Nat. Hist. (1843)	R 14	R 15	R 16	R 17	R 18	R 19	

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Portland Soc. Nat. Hist. (1843)			P 1:1		J 1:1		P 1:2 in 1869
Vermont Geol. Surv. (1844)		R	R				
Cleve. Acad. Nat. Sc. (1845)							Proc. 1845–59, pub. 1874
Ohio Agric. Repts. (1846)	15	16	17	18	19	20	
Smithsonian Inst. (1846)	S. C. 12 R 15 M. C. 1, 2, 3	R 16 M. C. 3, 4	R 17 M. C. 3, 4, 5, 6	R 18 S. C. 13 M. C. 5, 6	R 19 M. C. 5, 6	R 20 S. C. 14	S. C. 15, pub. 1867
Amer. Assoc. Adv. Sc. (1848)	P 13	P 14					
Essex Inst. (1848)	P 2, 3	P 3	P 3	P 3	P 4	P 4, Con	
Ann. Sc. Disc. (1850)	11	12	13	14	15	16	
Mississippi Geol. Surv. (1850)	R		R				
Illinois Geol. Surv. (1851)							G & Pal 2 v., 1866
Soc. Adv. Nat. Sc. Louisville (1851)							
Cal. Acad. Nat. Sc. (1853)	P 2	P 2	P 2	P 3	P 3	P 3	
Cal. Geol. Surv. (1853)		Ad	Ad	R	R, Pal	G	Pal 2, 1869 Ornith., 1870
Elliott Soc. Nat. Hist. (1853)	J 1, P 2						
Illinois St. Agric. Soc. (1853)	T 4	T 5	T 5	T 5	T 5	T 6	

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Institution	60	61	62	63	64	65	Remarks
Mining Mag. (1853)	ns. 1						
Missouri Geol. Surv. (1853)		R					
New Orleans Acad. Sc. (1853)				Cat			
Pacific RR. Surv. (1853)	12						
Wisconsin Geol. Surv. (1853)		R	G	R			
Kentucky Geol. Surv. (1854)		R 4					
Wisconsin Nat. Hist. Assoc. (1855)	Con						Con., 1866
Acad. Sc. St. Louis (1856)	T 1		T 2	T 2	T 2	T 2	
Chicago Acad. Sc. (1856)						Con	T 1, in 1867
Arkansas Geol. Surv. (1857)	R 2						
Ives' Exped. (1857)		R					
Michler's Exped. (1857)		R					
Northwest Bdry. Surv. (1857)	R						
Illinois Nat. Hist. Soc. (1858)		T 1					
Mullan's Exped. (1858)				R			
Simpson's Utah Exped. (1858)							Final R, in 1876
Texas Geol. Surv. (1858)							R, 1866
Wyoming Hist. & Geol. Soc. (1858)							
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Macomb. Exped. (1859)							R, in 1876
Minn. Geol. Surv. (1859)	R	R				R	3 R, in 1866
Mus. Comp. Zool. (1859)	R	R	R	R	R	R, Bul	
Raynolds' Exped. (1859)							R, 1868
Wilmington Inst. (1859)	Cat						
Hall's Exped. (1860)						N	
Hayes' Exped. (1860)		R					N, 1867
Isthmus Chiriqui Exped. (1860)		R					
Buffalo Acad. (1861)					Cat		
Linn. Soc., Lancaster, Pa. (1862)							Hist., 1866
Ward Mus. (1862)				Ad	Ad		
Nat. Acad. Sc. (1863)				R	R	R	
Kansas Geol. Surv. (1864)							R, 1866
Louisiana Surv. (1864)							R, 1867
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FROST, Charles Christopher [1805–1880]
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GIBBONS, William Peters [1812–1897]
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GOODALE, Stephen Lincoln [1815–1897]
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Western Monthly Magazine, Cincinnati, see Books, (1836; Riddell), III, 422
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Western Review & Miscellaneous Magazine, Lexington, Ky., see Books, (1819: Rafinesque), III, 384–85; (1820: Clifford), 386; (1820: Rafinesque), 387
Whipple's Explorations, see Pacific Railroad Surveys (1853), v. 3 & 4, III, 189, 194, 200, 206
Whitney & Foster's Survey of the Lake Superior Land District (1849), III, 105
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Wilkes-Barre, Pa. Wyoming Historical & Geological Society (1858), III, 289
Williams College Lyceum of Natural History, Williamstown, Mass. (1835), II, 596
Williamson's Explorations, see Pacific Railroad Surveys (1853), v. 5. III, 189, 195, 208, 211
Wilmington Institute (1859), III, 310
Wilmington, Delaware. Delaware Academy of Natural Sciences (1827), II, 452
———— Botanical Society of, (1842), II, 708
———— Wilmington Institute (1859), III, 310
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Wisconsin Geological Survey (1853), III, 228

Wisconsin Natural History Association, Milwaukee, (1855), III, 245
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———— Owen's Survey of Iowa, Illinois & Wisconsin (1839), II, 677
———— Owen's Survey of Wisconsin, Iowa & Minnesota (1848), III, 95
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———— Warren's Expedition to the, see Warren's Explorations in Nebraska & Dacotah (1856), III, 262
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APPENDIX TO ANNOTATED BIBLIOGRAPHY

See v. 1, p. 31–103

ALLEN, R. C., and MARTIN, H. M., see MARTIN, H. M., and ALLEN, R. C.

(2) BAILEY, Liberty Hyde. Sketch of the evolution of our native fruits . . . N. Y. Macmillan, 1898. 472 p. illus. pl. port.

American grape literature, p. 117–26; Silk growing literature, p. 155–58. See also v. 1, p. 32–3 (BAILEY).

(3) ———— ed. Cyclopaedia of American agriculture . . . new edition . . . N. Y. Macmillan, 1917. 4 v. illus. pl. port.

v. 4, ch. 2, p. 23–87, The historical evolution of N. A. agriculture. v. 4, ch. 8, p. 355–477. Education by means of agriculture: development of text-books on A.; the rise of state colleges of agriculture, etc. v. 4, ch. 10, p. 547–628, port. Biographies.

BAKER, Ray Palmer. Rensselaer Polytechnic Institute and the beginnings of science in the United States. (In Scientific Mthly. v. 19, p. 337–56, port. Oct. 1924)

The part played by Amos Eaton and other graduates in the development of American science.

(2) BANKS, Nathan. Index to the literature of American economic entomology, January 1, 1905, to December 31, 1914. Melrose Highlands, Mass., Amer. Assoc. Econ. Ent., 1917. 5 + 323 p. (In their Special Pub. no. 1)

Headings alphabetical with sub-arrangement in an author alphabet. Cont. from Jan. 1, 1915, to Dec., 1919, by Mabel Colcord and E. P. Felt. 1921. 4 + 388 p. (In their Special Pub. no. 2). See also v. 1, p. 33: BANKS (1).

(6) BARNHART, John Hendley. Brief sketches of some collectors of specimens in the Barton Herbarium. Phila. 1926. (In Bartonia. no. 9, p. 35–42)

See also v. 1, p. 34: B.

BIDWELL, Percy Wells, and FALCONER, J. I. History of agriculture in the northern United States 1620–1860 . . . Wash. Carnegie Inst. Wash., May, 1925. 12 + 512 p. (In its Pub. no. 358)

Excellent classified and critical bibliography, p. 454–92.

BIOLOGICAL ABSTRACTS: A comprehensive abstracting and indexing Journal of the world's literature in theoretical and applied biology,

exclusive of clinical medicine . . . Menasha, Wis., Union of Amer. Biol. Soc., 1926–date. v. 1–date.

A monthly. Begins with the literature of 1926. The first section is devoted to biography, history and bibliography.

BOARDMAN, Samuel L[ane]. Agricultural bibliography of Maine: a list of Maine writers on agriculture, with biographical sketches and a catalogue of their works; also an index to the volumes on the Agriculture of Maine from 1850 to 1892 . . . Augusta, Me., 1893. 117 p. port. (Appx. to Maine Bd. Agric. 35th Ann Rept. for 1892)

BRITISH MUSEUM (NATURAL HISTORY). LIBRARY. Catalogue . . . etc. Lond. 1922. v. 6, supp. A–I.

For preceding volumes see v. 1, p. 39 of this Bibliography.

BRONN, H[einrich] G[eorg]. Index palaeontologicus oder ubersicht der bis jetzt bekannten fossilen organismen, unter mitwirkung . . . H. R. Goppert und Herm. v. Meyer, bearbeitet von . . . Stuttgart, E. Schweitzerbart'sche Verlagshandlung, 1848–49. 3 v.

v. 1, 1848, A–M, 84 + p. 1–775
2, N–Z, P. [777–1382]
3, 1849 Enumerator palaeontologicus. 980 p.

Also issued in his Handbuch einer Geschichte der Natur. 1849. 3 v.

CARSON, Joseph. A history of the Medical Department of the University of Pennsylvania from its foundation in 1765 with sketches of the lives of deceased professors . . . Phila. Lindsay & Blakiston, 1869. 227 p.

CAVE, H[arold] S[ergius]. Historical sketch of the Geological Survey of Georgia; bibliography and other data. Atlanta, Ga., Foote & Davies Co., 1922. 3 + 154 p. 7 pl. 2 fig. map. (In Georgia Geol. Surv. Bull. no. 39)

Historical sketch, p. 3–37. See also Georgia Geol. Surv. (1836).
Bibliography, p. 86–142, arranged alphabetically by authors. Index to bibliography, p. 127–42.

CUMINGS, E[dgar] R[oscoe]. Bibliography of Indiana stratigraphy and paleontology, including papers bearing on certain general problems of correlation. Indianapolis, Indiana, 1922. (In Indiana. Dept. Conservation. Handbook of Indiana geology. p. 534–70)

Arranged alphabetically by author. See also Indiana Geol. Surv. (1837).

DICTIONARY OF AMERICAN BIOGRAPHY. . . . ed. by Allen Johnson . . . N. Y., Charles Scribner's Sons, 1928—. 20 v.

The Standard American biographical dictionary in the course of publication.

DICTIONARY OF NATIONAL BIOGRAPHY, edited by Leslie Stephen [and Sidney Lee]. Lond., Smith, Elder, 1885–1901. 66 v.

Reissued, 1908, 66 v. in 22 v. Valuable for sketches of workers during Colonial times. Index and Epitome.

DUNBAR, Seymour. A history of travel in America . . . Indianapolis, Bobbs-Merrill Co., 1915. 4 v. illus. pl. port.

v. 4, p. 1447–[81], contains "A contribution to the Bibliography of the history of travel in America."

ESSIG, Edward Oliver. Outlines of the history of American entomology. Berkeley, California, 1926. 72 p.

In mimeographed form. Considers the individuals, the periodicals and the institutions which have contributed to the development of American entomology.

(4) FAIRCHILD, Herman Le Roy. The development of geologic science. (In Scientific Mthly. v. 19, no. 1, p. 77–101, July, 1924)

Interesting general historical resume. See v. 1, p. 50, FAIRCHILD, of this Bibliography.

(2) FULLER, Myron L[eslie]. The New Madrid earthquake. Wash. Gov't. print. office, 1912. 119 p. illus. diagr. port. pl. tab. (In U. S. Geol. Surv. Bull no. 494)

History and discussion of the famous earthquake which occurred on Dec. 16, 1811, at New Madrid, Missouri.

Bibliography, alphabetically by author, p. 111–15. See v. 1, p. 52, FULLER, of this Bibliography.

(3) GAGER, C[harles] Stuart. The first "Botanic Garden" in Brooklyn. (In Bklyn. Bot. Gard. Record. v. 11, p. 115–18. Oct. 1922; v. 12, 119–25, 2 plans. Oct. 1923)

A description of Andre Parmentier's "Horticultural Garden," founded in 1825. See also v. 1, p. 52.

(2) GORDON, Samuel G[eorge]. The history of mineralogy in Pennsylvania. (In Amer. Miner. v. 4, no. 2, p. 16–7, Feb. 1919)

See also v. 1, p. 55, GORDON.

GRIFFIN, Grace Gardner. Writings on American history . . . 1906–8. N. Y., Macmillan, 1908–10. 3 v.

Annual subject bibliographies. Continued to date. Pub. by Yale Univ. Press and as Supplements to the Ann. Repts. of the American Historical Association. A valuable reference work, for materials on explorations, Americana, biographies, Colonial times, etc.

(2) GRINNELL, Joseph. . . . A bibliography of California ornithology: second installment to end of 1923 . . . Berkeley, Calif., Sept.

15, 1924. 191 p. (In Cooper Ornith. Club. Pacific Coast Avifauna. no. 16)

Contrib. no. 421 from Mus. Vert. Zool. of Univ. of Calif. Bibliography, chronologically arranged, p. 7–173. Index to authors, p. 175–79. For the First Installment, see v. 1, p. 56.

GROSS, Samuel D[avid]. Lives of eminent American physicians and surgeons of the nineteenth century. Phila., Lindsay & Blakiston, 1861. 836 p.

See also his "Autobiography; with sketches of some of his contemporaries." Phila. Barrie, 1887. 2 v. pl. port.

HARBECK, Charles T. A contribution to the Bibliography of the history of the U. S. Navy. Cambridge, Mass., privately printed at the Riverside Press, 1906. viii, 247 p.

Bibliography of Wilkes Explor. Exped. (1838), q. v., p. 113–15; other explorations, p. 115–25.

(3) HARSHBERGER, John W[illiam]. Some old gardens of Philadelphia. (In Pa. Mag. Hist. & Biog. v. 48, p. 289–300, illus. 1924)

See also v. 1, p. 58, HARSHBERGER.

HARTT, Rollin Lynde. The story of Yale's great museum. (In Scientific Mthly. v. 22, p. 473–93, illus. pl. port. June, 1926).

The beginnings and subsequent history of the Yale Mineralogical Cabinet (1802), q. v., see v. 2, p. 84–5.

HICKS, Philip Marshall. The development of the natural history essay in American literature . . . Phila., Pa., Univ. Pa., 1924. 167 p.

Thesis for Ph.D. Historical treatment of the chief colonial workers and those of the pioneer century.

HOWARD, L[eland] O[ssian]. Progress in economic entomology in the United States. Wash. 1900. (In U. S. Dept. Agric. Year-book for 1899. p. 135–56)

Interesting historical account.

(1) HUNT, Mabel G. List of publications of the United States Department of Agriculture from January, 1901, to December, 1925 . . . Wash. 1927. 182 p. (In U. S. Dept. Agric. Misc. Pub. no. 9)

(2) ———— List of Bulletins of the Agricultural Experiment Stations in the United States from their establishment to the end of 1920. Wash. 1924. 186 p. (In U. S. Dept. Agric. Dept. Bull. no. 1199)

Arranged alphabetically by states.

ISIS: International Review devoted to the History of Science and Civilization . . . ed. by George Sarton. Belgium, March, 1913–date. v. 1–date.

Now official quarterly organ of the History of Science Society. Contains annual bibliographies well annotated. Numerous and excellent reviews.

(3) JACKSON, Benjamin Daydon. History of the compilation of the Index Kewensis. (In Royal Hort. Soc. Jour. v. 49, pt. 2, p. 224–29. July, 1924)

See JACKSON (2), in v. 1, p. 64.

JAMES, Norman G. Brett. The life of Peter Collinson . . . London, Pub. for the author by Edgar G. Dunstan Co., [1925]. [293] p. illus. pl. port.

Bibliography of Collinson, p. 271–83. Portraits of C., p. 284–86. A frequent correspondent of colonial American naturalists, born, 1694, died 1768.

JELLETT, Edwin C[ostley]. Germantown gardens and gardeners. Germantown, Phila., Pa., H. F. McCann, 1914. 96 p. illus. pl. port.

From Site & Relic Society of Germantown. Historical Addresses. Phila. The Society, 1914, no. 10, p. 251–343. Excellent historical sketch of a local community always active in the development of gardens.

(1) JILLSON, Willard Rouse. A history of the Kentucky Geological Survey (1838–1921). (In Kentucky State Hist. Soc. Register. v. 19, no. 57, p. 90–112. 2 pl. port. Sept. 1921)

See also Kentucky Geol. Surv. (1854).

(2) ———— Geological research in Kentucky: a summary account of the several geological surveys of Kentucky, including a complete list of their publications and a general bibliography of 806 titles pertaining to Kentucky geology . . . Frankfort, Ky., Ky. Geol. Surv., 1923. 8+228 p. illus. pl. port., maps. (In Kentucky Geol. Surv. Geologic Reports. ser. 6, v. 15)

Bibliography, alphabetically by author, chapter 4, p. 85–148. See also Kentucky Geol. Surv. (1854).

(3) ———— Early mineral explorations in the Mississippi Valley (1540–1840). Springfield, Ill., 1924. (In Illinois State Hist. Soc. Trans. for 1924. p. 41–57)

Illinois State Library. Pub. 31.

(4) ———— A bibliography of the Mammoth Cave of Kentucky. Frankfort, Ky., 1923. (In Kentucky Geol. Surv. Geologic Reports. ser. 6, v. 10, p. 149–56)

Arranged alphabetically by author.

JOHNSON, Allen, ed., see DICTIONARY OF AMERICAN BIOGRAPHY.

(2) KELLY, Howard A[twood], and BURRAGE, Walter L[incoln]. Dictionary of American Medical Biography; lives of eminent physi-

cians of the United States and Canada, from the earliest times . . . N. Y. & Lond. D. Appleton & Co., 1928. xxx, 1364 p. 4°.

A new edition of the work entered on p. 66 of v. 1 of this Bibliography, (q. v.) Preface contains an extensive bibliography of authorities consulted.

KEW. ROYAL BOTANIC GARDENS . . . Catalogue of the Library of the . . . Lond., 1899. 790 p. 2 v. (In its Bull. Misc. Inform. Additional ser. III)

Alphabetically by author under 4 subjects: (1) General; (2) Travels; (3) Periodicals & serials; (4) MSS.

(3) KEYES, Charles Rollin. A century of Iowa geology. Des Moines, Iowa, 1919. (In Iowa Acad. Sc. Proc. for 1919. v. 26, p. [407]–40, 13 port.)

Historical survey of the chief contributors. See also IOWA GEOL. SURV. (1855). See v. 1, p. 67, KEYES, of this Bibliography.

LENG, Charles W[illiam]. Catalogue of the Coleoptera of America, north of Mexico. Mt. Vernon, N. Y., John D. Sherman, Jr., 1920. 10 + 470 p. 4°.

Bibliography of Taxonomic Coleopterology to January 1, 1919. p. [367]–444. Material arranged alphabetically by author and chronologically under same.

LINCOLN, Frederick C[harles]. . . . Author index to Proceedings of the Biological Society of Washington . . . volumes 1 to 35, 1881–1922. Wash., D. C., 1924. 98 p.

LINNAEAN SOCIETY OF LONDON. Catalogue of the printed books and pamphlets in the Library of the . . . new edition. London, The Society, 1925. [1] + 860 p.

Arranged alphabetically by author. Contains considerable American material.

LITTLE, Homer P. List of manuscript bibliographies in geology and geography. Wash., D. C., Feb. 1922. 17 p. (In National Research Council. Reprint & Circular ser. no. 27)

LOCKWOOD, GEORGE Browning. The New Harmony communities. Marion, Indiana, Chronicle Co., 1902. 282 p. illus. pl. port.

Contains an interesting account of the scientific workers associated with this social experiment. See p. 90–100, portraits.

MARTIN, Helen M., and ALLEN, R. C. An abstract of "A History of the Michigan Geological and Biological Survey." N. Y., Macmillan, 1923. (In Michigan Acad. Sc. Arts & Letters. Papers for 1921. v. 1, p. 224–47)

See also ALLEN, R. C. & MARTIN, H. M. A brief history of the Geological & Biological Survey of Michigan, 1837–1872; 1872–1920. (In

Michigan Hist. Mag. v. 6, p. 675–750, 3 ports. 1922)
See also MICHIGAN GEOL. SURV. (1837)

MASSACHUSETTS HORTICULTURAL SOCIETY. Catalogue of the library of the . . . Cambridge, Mass. Printed at the University Press, 1918–20. [7] + 587 p. 4°.

Pt. 1, 1918, p. 1–351, Alphabetically by authors & titles. Additions, p. 353–63, 364–72.

Pt. 2, 1920, Subject catalogue. p. 373–587.

Author catalogue issued alone and distributed to a few libraries. Cambridge, 1918. 363 p.

MASSACHUSETS SOCIETY FOR PROMOTING AGRICULTURE, Boston . . . Centennial year (1792–1892). [Salem, Mass., 1892]. 146 p.

Played an important part in the establishment of the Cambridge Botanic Garden (1804), q. v.

(3) MATHEWS, Edward B[ennett]. . . . Catalogue of published bibliographies in geology, 1896–1920 . . . Wash. Oct. 1923. 228 p. (In National Research Council. Bull. v. 6, pt. 5, no. 36)

General bibliographies, p. 17–22; subject bibliographies, p. 23–185; personal bibliographies, p. 186–210. See v. 1, p. 72, MATHEWS, of this book.

(3) MERRILL, George Perkins. The development of the glacial hypothesis in America. (In Pop. Sc. Mthly. v. 68, p. 300–22. Apr. 1906)

Repr. in next entry, p. 615–42.

See v. 1, p. 72–3, MERRILL, G. P. (1) & (2).

(4) ———— The first one hundred years of American geology. New Haven, Yale Univ. Press. 1924. 21 + 773 p. front. 36 pl. map. port. 130 illus.

The outstanding work in the field with which every worker should be familiar. This is practically a revised edition of his classic "Contributions," cited on p. 72–3, of v. 1, of this Bibliography. (See MERRILL, G. P., (1).)

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NATIONAL RESEARCH COUNCIL. Handbook of scientific and technical societies and institutions of the United States and Canada . . . Wash. Nat. Research Council, May, 1927. 304 p. (In its Bull. no. 58)

American section, by C. J. WEST; Canadian section compiled by National Research Council of Canada. Arranged alphabetically by the corporate name of the Society.

(3) NICKLES, John M[ilton]. Geologic literature on North America: part 2: Index. Wash. Gov't. print. office, 1924. 658 p. (In U. S. Geol. Surv. Bull. no. 747)

Bibliography in Bull. no. 746. See v. 1, p. 76, NICKLES.

PARSHLEY, Howard Madison. A bibliography of the North American Hemiptera-Heteroptera. Northampton, Mass., Smith College, 1925. 9 + 252 p. (Smith College. 50th Anniv. Pub. v. 4)

Alphabetically by author with chronological sub-arrangement.

PEALE, Titian Ramsay. The South Sea Surveying and Exploring Expedition; its origin, organization, equipment, purposes, results and termination. [1856]

MSS. of one of the naturalists of the Wilkes Exploring Expedition (1838), q. v., now in the Library of the U. S. Nat. Mus., see v. 2, p. 650. I have to thank Dr. Charles W. Richmond, Curator of Birds, U. S. Nat. Mus., for calling attention to and permitting me to read a copy of this important document. See also PEALE, this volume, Bibliog. Biogr.

PERCHERON, A[chille] R[emy]. Bibliographie entomologique . . . Paris, J. B. Bailliére, 1837. 2 v.

v. 1, [12] + 326 p.; v. 2, 376 p. Alphabetically by author.

(3) PERKINS, George Henry. History and summary of geological work in Vermont, 1810–1923. Montpelier, Vt., 1923. (In Vermont State Geol. 13th Ann. Rept. p. 1–70)

See also v. 1, p. 78 (PERKINS (1) & (2)).

PHILADELPHIA SOCIETY FOR THE PROMOTION OF AGRICULTURE. Minutes of the . . . from its institution in February, 1785, to March, 1810. Phila., John C. Clark, 1854. 124 p.

One of the earliest societies of its kind. Contributed to the advance of natural history.

(1) ROYAL SOCIETY OF LONDON. Catalogue of scientific papers: 1800–1900. London, 1867–date.

For first 16 v. see v. 1, p. 83, ROYAL, of this book.

v. 17, 18, 19 (for 1884–1900, Marc–Z), published in 1921, 1923 and 1925 respectively.

(2) ———— A general index to the Philosophical Transactions from the first to the end of the 70th volume, by P. H. Maty. London, 1787. 801 p.

Cont., v. 71–110, 1781–1820, Lond. 1821. 225 p.

v. 111–120, 1820–1830, Lond. 1833. 101 p.

Cont. to date.

SHARSWOOD, William. Bibliographia librorum Entomologicorum in America boreali editorum. (In Linnaea Entomologica. v. 13, p. [333]–53, 1859; & v. 14, p. 256–64, 1860)

(3) SHERBORN, Charles Davies. Index animalium . . . sectio secunda A Kalendis Januariis, 1801, usque ad finem Decembris, 1850.

Pt. 1, Introd., p. 1–14; Bibliography, p. 15–131; Index, A–Aff., p. 1–128. In the course of completion. For first part of the work, see v. 1, p. 88, SHERBORN (2).

SHERMAN, John D. [ ], Jr. Some entomological and other bibliographies. (In N. Y. Ent. Soc. Jour. v. 32, no. 4, p. 206–15. Dec. 1924)

Excellent account by an experienced bookseller.

SMITH, Edgar F[ahs]. Chemistry in America: chapters from the history of the science in the United States. N. Y. Appleton, 1914. 13 + 356 p. illus. port.

Interesting sidelights on the chemists who were also mineralogists during the Pioneer Century of American science.

See also his Chemistry in Old Phila. 1919. 106 p. illus.

SMITH, Harriette Knight. The history of the Lowell Institute. Bost., N. Y., & Lond., Lamson, Wolffe & Co., 1898. 125 p. illus. pl. port.

A Boston institution which did much to popularize science by means of a series of lectures.

SNEDEKER, Caroline Dale. Seth Way: a romance of New Harmony community . . . with illustrations by Franklin Booth. Bost., Houghton, 1917. 11, 413, 2 p. illus. port.

A volume of fiction dealing with a scientific community which included Say, Maclure and Owen. Author a grand-daughter of Owen.

STEJNEGER, L. H., and BARBOUR, Thomas. A check list of North American Amphibians and Reptiles . . . Cambridge, Harvard University press, 1923. x, 171 p.

1st ed. Cambridge, 1917. 125 p.

(3) STEVENS, Neil E[verett]. The botany of the New England poets. (In Scientific Mthly. v. 12, p. 137–49. Feb. 1921)

SURGEON-GENERAL'S CATALOGUE, see U. S. WAR DEPARTMENT.

UNION LIST OF SERIALS, in libraries of the United States and Canada, edited by Winifred Gregory . . . N. Y., H. W. Wilson Co., 1927. 1588 p. 4°.

Showing the location of thousands of serials in over 225 of the important libraries of the country.

A Bibliography of Union Lists of Serials comp. by D. C. Haskell, p. 1581–84.

U. S. WAR DEPARTMENT. SURGEON-GENERAL'S OFFICE. Index catalogue of the Library of the Surgeon-General's Office . . . Authors and Subjects. Wash. Govt. print. office, 1880–95. 16 v. 4°.

1st ser. 1880–95, 16 v.

2d ser. 1896–1916, 21 v.

3d ser. 1918–date.

A monumental catalogue containing many items relating to early American Natural History.

VAN DUZEE, Edward P[ayson]. Catalogue of the Hemiptera of America north of Mexico, excepting the Aphididae, Coccidae and Aleurodilae. Berkeley, Univ. Calif. Press, 1917. 14+p. 1–902. (In Univ. Calif. Agric. Exper. Stat. Pub. Tech Bull. Ent. v. 2)

VENABLE, W[illiam] H[enry]. Some early travellers and analists of the Ohio Valley. (In Ohio Arch. & Hist. Quart. v. 1, p. 230–42. 1888)

(1) WADE, Joe S[anford]. On entomological publications of the United States government. (In Ent. Soc. Wash. Proc. v. 25, no. 1, p. 1–32. Jan. 1923)

Bibliographical review of the sources in the federal documents.

(2) ———— A Bibliography of the immature stages of North American Coleoptera. (In MSS at the Bureau of Entomology).

(3) ———— A bibliography of biographies of entomologists with special reference to North American workers. (In Ent. Soc. Amer. Annals. v. 21. Sept. 1928)

WAGNER, Henry R[aup]. The plains and the Rockies: a bibliography of original narratives of travel and adventure, 1800–1865. San Francisco, John Howell, 1921. 193 p.

Well annotated list, arranged chronologically.

WALDMAN, Milton. Americana, the literature of American history. Lond., Dulau & Co., 1926. xviii, 271 p. illus. pl. facsim.

Useful popular review of the leading early works.

WALTON, W[illiam] R[andolph]. Entomological drawings and draughtsmen: their relation to the development of economic entomology in the United States. (In Ent. Soc. Wash. Proc. v. 23, no. 4, p. 69–99. Apr. 1921)

Historical survey.

WEST, C. J., and HULL, Callie. . . . List of manuscript bibliographies in the biological sciences; compiled for the Research Information Service. Wash., D. C., Je. 1923. 51 p. (In National Research Council. Reprint & Circular ser. no. 45)

WINSOR, Justin, ed. . . . Narrative and critical history of America. Bost. & N. Y., Houghton, Mifflin, [1889]. 8 v. illus. pl. port. maps. 4°.

An important work containing source material.

WRIGHT, John Kirtland. Aids to geographical research; bibliographies and periodicals. N. Y., Amer. Geogr. Soc., 1923. 243 p. (In Amer. Geogr. Soc. Research ser.)

Useful annotated list including considerable material relative to the natural history sciences.

YOUNG, R(obert) T[hompson]. Biology in America . . . Bost., Badger, [1922]. 509 p. illus. pl. port.

ch. 1, p. 19–46. Work of early biologists, explorers, travellers, collectors, field naturalists, early surveys.

ch. 2, p. 47–87. Biological Institutions in America. Brief historical resumé.

ZIMMER, John Todd. Catalogue of the Edward E. Ayer ornithological library . . . Chicago, Field Museum Nat. Hist., 1926. 2 v. illus. pl. (In its Zool. ser. v. 16. Pub. no. 239–240)

v. 1, 10 + p. 1–364, pt. 1

v. 2, p. 365–706, pt. 2

Arranged alphabetically by authors. Well annotated. Edited by Wilbur H. Osgood.

ZOOLOGICAL SOCIETY OF LONDON. Catalogue of the library of the . . . fifth edition. London, Printed by Taylor & Francis, 1902. 2 + 856 p.

Books, arranged alphabetically by authors, p. 1–731. Periodicals, Transactions, etc., p. 733–837.

APPENDIX TO A CLASSIFIED SUBJECT INDEX TO THE ANNOTATED BIBLIOGRAPHY

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AGRICULTURE.

Bibliography:

BAILEY, (3), 1917, (Cycl. Amer. Agric.)
BIDWELL & FALCONER, 1925, (Northern U. S. 1620–1860)
BOARDMAN, 1893, (Maine)
HUNT, (1), 1927, (Pub. U. S. Dept. Agric. 1901–25)
HUNT, (2), 1924, (Bull. Pub. Agric. Exper. Stations)
MASS. HORT. SOC., 1918, (Cat. Library)

Biography:

BAILEY, (3), 1917, (Cycl. Amer. Agric.)
BOARDMAN, 1893, (Maine)

History:

BAILEY, (3), 1917, (Cycl. Amer. Agric.)
BIDWELL & FALCONER, 1925, Northern U. S. 1620–1860)
BOARDMAN, 1893, (Maine)
MASS. SOC. PROM. AGRIC., 1892, (Hist. Soc. 1792–1892)
PHILA. SOC. PROM. AGRIC., 1854, (Hist. 1785–1810)

BIOLOGY.

Bibliography:

WEST & HULL, 1923, (MS Bibliographies)

BOTANIC GARDENS.

History:

GAGER, (3), 1922, (Parmentier's Garden)
HARSHBERGER, (3), 1924, (Old Phila.)
JELLETT, 1914, (Germantown, Pa.)

See also v. 1, p. 105–6.

BOTANY.

Bibliography:

BIOLOGICAL ABSTRACTS, 1926, (Universal)
KEW, ROYAL BOT. GARD., 1899, (Cat. of Library)
WEST & HULL, 1923, (MS Bibliographies)

See also v. 1, p. 106–7

Biography:

BARNHART, (6), 1926, (Collectors of Barton Herb.)
JELLETT, 1914, (Germantown, Pa. Gardeners)

See also v. 1, p. 107.

History:

JACKSON, B. D., (2), 1924, (Hist. Index Kewensis)

JELLETT, 1914, (Germantown, Pa. Gardens)
STEVENS, (3), 1921, (New England Poets)
See also v. 1, p. 107–8.

COLEOPTERA.

Bibliography:
LENG, 1920, (Catalogue C. north Mexico)
WADE, (2), (Immature Stages)
See also ENTOMOLOGY: Bibliography.
See also v. 1, p. 109.

COLONIAL TIMES.

Bibliography, Biography & History:
BIDWELL & FALCONER, 1925, (Agric. Northern U. S., 1620–1860)
DICTIONARY OF AMERICAN BIOGRAPHY, 1928–
DICTIONARY OF NATIONAL BIOGRAPHY, 1885–
GRIFFIN, G. G., 1908–date, (Writings on Amer. Hist.)
JAMES, 1925, (Life Peter Collinson)
JILLSON, (3), 1924, (Hist. Mineral Explor. Miss. Valley, 1540–1840)
MERRILL, G. P., (4), 1924, (Hist. first 100 yrs Geol.)
See also v. 1, p. 109–10

ENTOMOLOGY.

Bibliography:
BANKS, (2), 1917, (Index Econ. Lit., 1905–19)
BIOLOGICAL ABSTRACTS, 1926, (Universal)
PERCHERON, 1837
SHARSWOOD, 1859
SHERMAN, 1924
WADE, (1), 1923, (Pub. in U. S. Documents)
WADE, (3), 1928, (Biographies of Entomologists)
See also COLEOPTERA; HEMIPTERA-HETEROPTERA.
See also v. 1, p. 112.

Biography:
WADE, (3), 1928, (Bibliographies)
See also v. 1, p. 112.

History:
ESSIG, 1926, (Outlines)
HOWARD, 1900, (Progress in Econ. Ent.)
WALTON, 1921, (Draughtsmen)
See also v. 1, p. 112–13.

EXPERIMENT STATIONS.

Bibliography:
HUNT, (2), 1924, (Bull. Agric. Exper. Stat.)

EXPLORATIONS.
Bibliography:
HARBECK, 1906, (Those made by U. S. Navy)
WAGNER, 1921, (Plains & Rockies)
See also v. 1, p. 113–14.
History:
DUNBAR, 1915, (Travel in America)
MERRILL, G. P. (4), 1924.
PEALE, T. R., (1856), (MSS Account of Hist. Wilkes Exped.)
VENABLE, 1888, (Early travellers Ohio Valley)
See also v. 1, p. 113–14.

GEOGRAPHY.
Bibliography:
LITTLE, 1922, (MS Bibliographies)
WRIGHT, 1923, (Aids to geogr. research)
See also GEOLOGY: Bibliography
EXPLORATIONS: Bibliography
NATURAL HISTORY (GENERAL): Bibliography
History:
See GEOLOGY: History
EXPLORATIONS: History
NATURAL HISTORY (GENERAL): History

GEOLOGY.
Bibliography:
CUMINGS, 1922, (Indiana)
FULLER, (2), 1912, (New Madrid, Mo., Earthquake)
JILLSON, (2), 1923, (Kentucky)
LITTLE, 1922, (MS Bibliographies)
MATHEWS, (3), 1923, (Cat. Bib. Pub. 1896–1920)
MERRILL, G. P., (4), 1924
NICKLES, (3), 1924
See also v. 1, p. 115–17.
Biography:
MATHEWS, (3), 1923, (Bib. Geologists, 1896–1920)
MERRILL, G. P., (4), 1924
See also v. 1, p. 117.
History:
FAIRCHILD, (4), 1924
FULLER, (2), 1912, (New Madrid, Mo. Earthquake)
JILLSON, (2), 1923, (Kentucky)
KEYES, (3), 1919, (Iowa)
MERRILL, G. P., (3), 1906, (Glacial Hypothesis)
MERRILL, G. P., (4), 1924, (First 100 years)
PERKINS, (3), 1923, (Vermont)
See also v. 1, p. 117–19.

HEMIPTERA–HETEROPTERA.
Bibliography:
PARSHLEY, 1925
VAN DUZEE, 1917, (Cat of Hemiptera)
See also ENTOMOLOGY: Bibliography.

HERPETOLOGY.
STEJNEGER & BARBOUR, 1923

HORTICULTURE.
Bibliography:
BAILEY, (2), 1898, (Evolution of native fruits)
MASS. HORT. SOC., 1918, (Cat. of Library)
See also v. 1, p. 119.
History:
BAILEY, (2), 1898, (Evolution of native fruits)
See also v. 1, p. 119.

JOURNALS, (SCIENTIFIC), see SERIALS, (SCIENTIFIC)

LIBRARIES, (SCIENTIFIC).
Bibliography:
BRITISH MUS. NAT. HIST., 1922, (Cat. of Library)
LINN. SOC. LONDON, 1925, (Cat. of Library)
MASS. HORT. SOC., 1918, (Cat. of Library)
U. S. WAR DEPT. SURGEON-GEN. OFF., 1880, (Cat.)
ZIMMER, 1926, (Cat. Library Ayer Coll. Field Mus.)
ZOOL. SOC. LONDON, 1902, (Cat. of Library)
See also v. 1, p. 121.

MEDICINE.
Bibliography:
U. S. WAR DEPT. SURGEON–GEN. OFF., 1880, (Cat. Library)
Biography:
CARSON, 1869, (Med. Dept. Univ. Pa.)
GROSS, 1861, (Amer. Physicians & Surgeons)
KELLY, 1912, (see v. 1, p. 66)
KELLY & BURRAGE, 1920, (see v. 1, p. 66)
History:
BARDEEN, 1905, (Anatomy), (see v. 1, p. 33–4)
CARSON, 1869, (Med. Dept. Univ. Pa.)
KELLY, 1912, (see v. 1, p. 66)

MINERALOGY.
Bibliography & Biography:
MERRILL, G. P., (4), 1924, (First 100 years)
NICKLES, (3), 1924, (Bib.)
See also v. 1, p. 122–23.

History:
GORDON, (2), 1919, (Pa.)
JILLSON, (3), 1924, (Explor. Miss Valley, 1540–1840)
MERRILL, G. P., (4), 1924, (First 100 years)
SMITH, E. F., 1914, (Chemistry in America)
See also v. 1, p. 123.

MUSEUMS.
History:
HARTT, 1926, (Yale Univ.)
See also v. 1, p. 124.

NATURAL HISTORY (GENERAL).
Bibliography:
BIOLOGICAL ABSTRACTS, 1926, (Universal)
BRITISH MUS. NAT. HIST., 1922, (Supp. to 1903)
GRIFFIN, G. G., 1908, (Writings on Amer. History)
ISIS, 1913–date
LINN. SOC. LONDON, 1925, (Cat. Library)
ROYAL SOC. LONDON, (1), 1867, (Universal)
ROYAL SOC. LONDON, (2), 1787, (Index to Pub.)
UNION LIST OF SERIALS, 1928
U. S. WAR DEPT. SURGEON-GEN. OFF., 1880, (Cat. Library)
WALDMAN, 1926, (Americana)
ZOOL. SOC. LONDON, 1902, (Cat. Library)
See also v. 1, p. 125.
Biography:
DICTIONARY AMER. BIOGRAPHY, 1928
DICTIONARY OF NATIONAL BIOGRAPHY, 1885
MERRILL, G. P., (4), 1924, (First 100 yrs Amer. Geol.)
SMITH, E. F., 1914, (Chemistry in America)
See also v. 1, p. 125.
History:
BAKER, R. P., 1924, (Rensselaer Poly. Inst.)
HICKS, 1924, (Develop. Nat. Hist. Essay in Amer. Lit.)
LOCKWOOD, 1902, (New Harmony, Ind. Communities)
SMITH, E. F., 1914, (Chemistry & Min. in America)
SNEDEKER, 1917, (New Harmony, Ind.)
WALDMAN, 1926, (Americana)
WINSOR, 1889, (Narrative & Critical Hist. Amer.)
YOUNG, 1922, (Biology in America)
See also v. 1, p. 125–26.

ORNITHOLOGY.
Bibliography:
BIOLOGICAL ABSTRACTS, 1926, (Universal)

GRINNELL, J., (2), 1924, (California)
ZIMMER, 1926, (Cat. Ayer Library Field Mus.)
See also v. 1, p. 128.

PALAEONTOLOGY.

Bibliography:
BRONN, 1848, (Index P.)
CUMINGS, 1922, (Indiana)
MERRILL, G. P., (4), 1924
NICKLES, (3) 1924
See also v. 1, p. 129–30.

Biography:
MERRILL, G. P., (4), 1924
See also v. 1, p. 131.

History:
MERRILL, G. P., (4), 1924
See also v. 1, p. 131.

SERIALS, (SCIENTIFIC).

Bibliography:
HUNT, (1), 1927, (U. S. Dept. Agric. 1901–25)
HUNT, (2), 1924, (State Exper. Stations)
LINCOLN, 1924, (Biol. Soc. Wash.)
LINN. SOC. LONDON, 1925
ROYAL SOC. LONDON, (1), 1867, (Universal)
ROYAL SOC. LONDON, (2), 1787–1833, (Index to its Pub.)
UNION LIST OF SERIALS, 1928, (Universal)
U. S. WAR DEPT. SURGEON-GEN. OFF., 1880, (Medical)
WRIGHT, 1923, (Aids to Geographical research)
ZOOL. SOC. LONDON, 1902, (Cat. Library)
See also v. 1, p. 133.

SOCIETIES, (SCIENTIFIC).

Bibliography:
NATIONAL RESEARCH COUNCIL, 1927, (U. S. & Canada)
See also v. 1, p. 134.

History:
SMITH, H. K., 1898, (Lowell Institute)
See also v. 1, p. 134.

SURVEYS, GEOLOGICAL (STATE).

Bibliography:
CAVE, 1922, (Georgia)
CUMINGS, 1922, (Indiana)
JILLSON, (1), 1921, (Kentucky)

JILLSON, (2), 1923, (Kentucky)
MERRILL, G. P., (4), 1924
See also v. 1, p. 135–36.

History:
CAVE, 1922, (Georgia)
JILLSON, (1), 1921, (Kentucky)
JILLSON, (2), 1923, (Kentucky)
MARTIN & ALLEN, 1923, (Michigan)
MERRILL, G. P., (4), 1924
PERKINS, (3), 1923, (Vermont)
See also v. 1, p. 136–37.

ZOOLOGY.

Bibliography:
BIOLOGICAL ABSTRACTS, 1926, (Universal)
SHERBORN, (3), 1928
WEST & HULL, 1923, (MS Bibliographies)
See also v. 1, p. 137–39.
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ORNITHOLOGY: BIBLIOGRAPHY

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BOSTON.

MASS. HORT. SOC., 1918, (Cat. of Library)
MASS. SOC. PROM. AGRIC., 1892, (Hist. Soc. 1792–1892)
SMITH, H. K., 1898, (Lowell Institute)
See also v. 1, p. 142.

BROOKLYN, N. Y.

GAGER, (3), 1922, (Hist. Parmentier's Garden)

CALIFORNIA.

GRINNELL, J., (2), 1924, (Bib. Ornith.)
See also v. 1, p. 143.

CANADA.

NATIONAL RESEARCH COUNCIL, 1927, (Societies)
PENHALLOW, 1887, (Hist. Bot.), see v. 1, p. 78.

CHICAGO.

ZIMMER, 1926, (Cat. Ayer Library, Field Mus.)
See also v. 1, p. 143.

DISTRICT OF COLUMBIA. see WASHINGTON, D. C.

GEORGIA.

CAVE, 1922, (Hist. & Bib. Geol. Surv.)

See also v. 1, p. 144–45.

GERMANTOWN, Pa.

JELLETT, 1914, (Hist. Gardens & Gardeners)

See also PHILADELPHIA.

ILLINOIS.

See also CHICAGO.

INDIANA.

CUMINGS, 1922, (Bib. Pal. & Stratigraphy)

See also NEW HARMONY, Ind.

See also v. 1, p. 145.

IOWA.

KEYES, (3), 1919, (Century of I. Geol.)

See also v. 1, p. 145–46.

KENTUCKY.

JILLSON, (1), 1921, (Hist. Geol. Surv.)

JILLSON, (2), 1923, (Hist. & Bib. Geol.)

JILLSON, (4), 1923, (Bib. Mammoth Cave)

See also v. 1, p. 146.

MAINE.

BOARDMAN, 1893, (Agric. Bib.)

See also v. 1, p. 146.

MAMMOTH CAVE, KENTUCKY.

JILLSON, (4), 1923, (Bibliography).

See also v. 1, p. 146.

MASSACHUSETTS.

See also BOSTON.

MICHIGAN.

MARTIN & ALLEN, 1923, (Hist. Geol. Surv.)

See also v. 1, p. 147.

MISSISSIPPI VALLEY.

JILLSON, (3), 1924, (Hist. Mineral Explor. 1540–1840)

See also v. 1, p. 148.

MISSOURI.
See also NEW MADRID.

NEW MADRID, MISSOURI.
FULLER, (2), 1912, (Hist. & Bib. N. M. Earthquake)

NEW HARMONY, INDIANA.
LOCKWOOD, 1902, (Hist. of N. H. Communities)
SNEDEKER, 1917, (Seth Way, a romance)
See also v. 1, p. 149.

NEW HAVEN, CONN.
HARTT, 1926, (Yale Univ. Museum)
See also v. 1, p. 149.

NEW YORK (STATE).
See also BROOKLYN & TROY, N. Y.

OHIO VALLEY.
VENABLE, 1888, (Hist. Early travellers)

PENNSYLVANIA.
GORDON, (2), 1919, (Hist. Mineralogy)
See also v. 1, p. 151–52.
See also GERMANTOWN & PHILADELPHIA, PA.

PHILADELPHIA.
BARNHART, (6), 1926, (Collectors of Barton Herbarium)
CARSON, 1869, (Hist. Med. Dept. Univ. Pa.)
HARSHBERGER, (3), 1924, (Hist. Botanic Gardens)
PHILA. SOC. PROM. AGRIC., 1854, (Hist. 1785–1810)
SMITH, E. F., 1914 & 1919, (Chemistry in America & P.)
See also GERMANTOWN, Pa.
See also v. 1, p. 152.

ROCKY MOUNTAINS.
WAGNER, 1921, (Bib. Original Narratives of Travels)
See also v. 1, p. 152.

TROY, N. Y.
BAKER, R. P., 1924, (Rensselaer Poly. Inst.)

VERMONT.
PERKINS, (3), 1923, (Hist. Geol.)
See also v. 1, p. 154.

WASHINGTON, D. C.
HUNT, (1), 1927, (Bib. Pub. U. S. Dept. Agric., 1901–25)
LINCOLN, 1924, (Index Pub. Biol. Soc. Wash.)
U. S. WAR DEPT. SURG. GEN. OFF., 1880–date, (Cat. Library)
See also v. 1, p. 154.

APPENDIX TO A SELECTED BIBLIOGRAPHY OF THE BIOGRAPHIES AND BIBLIOGRAPHIES OF THE PRINCIPAL AMERICAN NATURALISTS OF THE PIONEER CENTURY AND OF COLONIAL TIMES

See v. 1, p. 156–244

ABBOT, John. 1750–1840

1888 Scudder, S. H. J. A., the Aurelian. (In Canadian Ent. v. 20, p. 150–54. 1888)

See also v. 1, p. 156.

ADLUM, John. 1759–1836

1915 Bailey's Standard Cycl. Hort. v. 3, p. 1563, port.

1926 Bartonia, no. 9, p. 36. Oct. 1926.

1928 Dict. Amer. Biog. 1928. v. 1, p. 109.

AGATE, Alfred T. 1812–1846

1928 Dict. Amer. Biog. 1928. v. 1, p. 122–23.

ALLEN, Charles Linnaeus. 1828–1909

1915 Bailey's Standard Cycl. Hort. v. 3, p. 1563.

ALLEN, Joel Asaph. 1838–1921

1926 Chapman, Frank. J. A. A. (In Nat. Acad. Sc. Mem. v. 21, p. 1–20, port. 1926). Rd in 1922.

Bibliography, p. 15–20. See also v. 1, p. 158.

ALLEN, Pickering Dodge. 1838–1863

1867 Allen, J. F. P. D. A. Bost. Dutton, 1867. 174 p. port.

ANDREWS, Edmund. 1824–1904

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 29.

ASHBURNER, William. 1831–1887

1887 Stearns, R. E. C. W. A. (In Science. v. 9, p. 462. May 13, 1887)

Also in West Amer. Scientist. San Diego, Cal. v. 3, p. 141–42. Je. 1887.

ATWATER, Caleb. 1778–1867

1928 Dict. Amer. Biog. 1928. v. 1, p. 415–16. See also v. 1, p. 159.

ATWOOD, Nathaniel Ellis. 1807–1886

1887 Autobiography. Wash. 1887. (In Goode, G. B., ed. Fisheries & Fishery Industry U. S. sect. 4, p. 149–68). See also v. 1, p. 159.

AUDUBON, John James Laforest. 1780–1851

1897 Bradford, M. F. A. New Orleans, Graham & Son, printers, 1897. 82 p. port. illus. pl. 12°.

1926 Herrick, F. H. Delineations of American scenery and character, with an introduction by . . . N. Y. G. A. Baker, 1926. 49 + 349 p. port.

For other A. entries see p. 159–60 of v. 1 of this BIBLIOGRAPHY.

AYRES, William Orville. 1817–1887

1887 Conn. Med. Soc. Proc. n. s. v. 3, no. 4, p. 174–76. Hartford, 1887.

BACHMAN, John. 1790–1874

1928 Dict. Amer. Biog. v. 1, p. 466–67. 1928. See also v. 1, p. 161.

BAIRD, Spencer Fullerton. 1823–1887

1923 Jordan, D. S. S. F. B. & U. S. Fish Commission. (In Scientific Mthly. v. 17, p. 97–107. Aug. 1923)

1924 Merriam, C. H. B., the naturalist. (In Scientific Mthly. v. 18, p. 588–95. 1924)

See also v. 1, p. 161–62.

BANISTER, John. 1650–1692

1928 Dict. Amer. Biog. 1928. v. 1, p. 575–76. See also v. 1, p. 162.

BARRIS, Willis Hervey. 1821–1901

1901 White, C. A. W. H. B. (In Annals of Iowa. ser. 3, v. 5, p. 219–24, port. Oct. 1901)

BARRY, Patrick. 1816–1890

1890 Annals of Hort. 1890. p. 287–90.

1915 Bailey's Standard Cycl. Hort. v. 3, p. 1564, port.

1928 Dict. Amer. Biog. 1928. v. 1, p. 655.

BARTON, Benjamin Smith. 1766–1815

1926 Pennell, F. W. The elder Barton—his plant collection and the mystery of his Floras. (In Bartonia, no. 9, p. 17–34. 1926)

See also v. 1, p. 163.

BARTON, William Paul Crillon. 1786–1856

1919 Pleadwell, F. L. W. P. C. B., surgeon, U. S. N., a pioneer in American naval medicine. (In Annals Med. Hist. v. 2, no. 3, p. 267–301, illus. pl. port. 1919)

See also v. 1, p. 163.

BARTRAM, John. 1699–1777

1907 John Bartram Assoc., Phila. Bartram's garden . . . March, 1904, with a new plan of the garden, Aug. 1907. Phila. J. J. McVey, 1907. 40 p. illus. front.

Reissued, ed. by Eliz. O. Abbot, Phila. 1915.

1925 Middleton, W. S. J. B. (In Scientific Mthly. v. 21, p. 191–216, illus. Aug. 1925)

See also v. 1, p. 163.

BASSETT, Homer Franklin. 1826–1902

1902 Ent. News. v. 13, p. 203–5, port. Sept. 1902.

See also v. 1, p. 164.

BERLANDIER, Louis (Jan Luis). –1851

1853 Smith. Inst. Catalogue of the B. MSS deposited in the Smith. Inst. Wash. 1853. 8 p.

Hist. Geogr. MSS of explorations in Mexico & U. S. west of the Sabine now in the MSS Div. of Library of Congress in 11 v.

See also v. 1, p. 165.

BLACKIE, George Stodart. 1834–1881

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 104–5.

BLAKE, Joseph. 1814–1888

1893 Maine Bd. Agric. 35th Ann. Rept. for 1892. 1893. appx. p. 26–7. (Agric. Bibliog. of Maine)

BLODGETT, John Loomis. 1809–1853

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 114.

See also v. 1, p. 166.

BOOTH, Charles Miller. 1830–1906

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 123–24.

See also v. 1, p. 166.

BOOTH, James Curtis. 1810–1888

1922 Smith, E. F. J. C. B., chemist. Phila. 1922. 17 p. port.

Rd before Hist. Sect. Amer. Chem. Soc. Sept. 9, 1922.

See also v. 1, p. 166.

BRADLEY, Samuel Beach. 1796–1880

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928 p. 140.

See also v. 1, p. 167.

BRECK, Joseph. 1794–1873

1915 Bailey's Standard Cycl. Hort. 1915. v. 3, p. 1566, port.

BRIDGEMAN, Thomas. –1850

1915 Bailey's Standard Cycl. Hort. 1915. v. 3, p. 1566, port.

BRIDGER, James. 1804–1881

1925 Alter, J. C. J. B., trapper, frontiersman, scout and guide. Salt Lake City, Utah, Shepard Book Co., 1925. 15 + 546 p. illus. pl. port.

BRINCKLE, William Draper. 1798–1862

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 147–48.
See also v. 1, p. 168.

BROWNE, Daniel Jay. [1804–]

1929 Dict. Amer. Biog. v. 3. 1929.

BROWNNE, Robert H. 1810–1879

1879 Torrey Bot. Club. Bull. v. 6, p. 291. 1879.
See also v. 1, p. 169.

BRUSH, George Jarvis. 1831–1912

1924 Dana, E. S. G. J. B. (In Nat. Acad. Sc. Mem. v. 17, p. 105–12, port. 1924). Rd in 1920.
See also v. 1, p. 169.

BRYDGES, Thomas. 1807–1865

1866 Calif. Acad. Sc. Proc. v. 3, p. 236–37. 1866. (By W. H. Dall)

1887 West Amer. Scientist. San Diego, Calif., Dec. 1887. v. 3, p. 223–27. (By R. E. C. Stearns)

CALDWELL, Charles. 1772–1853

1921 Middleton, W. S. C. C. (In Annals Med. Hist. v. 3, no. 2, p. 156–78, port. 1921)
Bibliography, p. 177–78. See also v. 1, p. 170.

*CARVER, Jonathan. 1710–1780

1906 Amer. Hist. Rev. v. 11, p. 287–302. Jan. 1906. (E. G. Bourne)

1907 Lloyd Library, Cincinnati. Bull. no. 9. Reprod. ser. no. 5. 1907. port.

1910 Lee, John Thomas. A bibliography of Carver's travels. Madison, Wis., 1910. (In State Hist. Soc. Wisconsin. Proc. for 1909. p. 143–83, port. 5 facsim.)
Comprehensive and thorough collation. See also v. 1, p. 171.

*CATESBY, Mark. 1679–1749

1928 Ent. News. v. 39, p. 270–74. Nov. 1928. (H. B. Weiss)
See also v. 1, p. 171.

CHAPMAN, Nathaniel. 1780–1853

1920 Kelly & Burrage. Amer. Med. Biog. 1920. p. 208–9.
Also in Kelly, H. A. Cycl. Amer. Med. Biog. v. 1, p. 171–72, port. 1912.

CLEMENS, James Brackenridge. 1829–1867

1914 Ent. News. v. 25, p. 289–92, port. 1914. (By Henry Skinner)
See also v. 1, p. 172.

CLIFFORD, John D. 1778–1820

1820 Western Rev. & Misc. Mag. v. 2, p. 309–10, Lexington, Ky. June, 1820.
Friend & supporter of Rafinesque.

1896 Filson Club. Pub. no. 11, p. 97, ft. note. 1896.
From the History of the Transylvania University by Robert Peter.

COATES, Benjamin Hornor. 1797–1871

1882 Pa. Mag. Hist. & Biog. v. 6, p. 21–33. 1882. (J. L. Levick)
See also v. 1, p. 173.

COLDEN, Cadwallader. 1688–1766

1887 Dict. Nat. Biog. 1887. v. 11, p. 260–61.
See also v. 1, p. 173.

COLE, Samuel W. 1796–1851

1893 Maine Bd. Agric. 35th Ann. Rept. for 1892. 1893. appx. p. 30–1. (Agric. Bibliog. Maine)

COLLINS, Zaccheus. 1764–1831

1921 Torrey Bot. Club. Mem. v. 6, p. 291. 1921.

*COLLINSON, Peter. 1694–1768

1925 James H. G. Brett—. P. C. London, Dunstan, 1925. 293 p. illus. pl. port.
Bibliography, p. 271–83; portraits, p. 284–86. See also v. 1, p. 173.

CONRAD, Timothy Abbott. 1803–1877

1893 Dall, W. H. Determination of the dates of publication of Conrad's "Fossils of the Tertiary formation," and "Medial Tertiary." (In Phil. Soc. Wash. Proc. v. 12, p. 215–39. 1893)
See also v. 1, p. 173–74.

COOPER, Thomas. 1759–1840

1918 Himes, C. F. T. C. Carlisle, Pa., 1918. 70 p. port.

1919 Smith, E. F. T. C. (In his Chemistry in Old Phila. 1919. p. 63–81)

1926 Malone, Dumas. T. C. New Haven, Yale Univ. Press, 1926. 432 p. port.
Bibliography, p. 402–16. See also v. 1, p. 174.

COPE, Edward Drinker. 1840–1897

1899 Frazer, Persifor. Alphabetical cross reference catalogue of all the publications of E. D. C. from 1859 till his death in 1897. Mexico City, 1899–1900. (In Sociedad Cientifica Antonio Alzate. Mem. y Revista. v. 14, p. 39–72, 233–56, 439–66; v. 15, p. 31–96)
See also v. 1, p. 174–75.

COWAN, Frank. 1844–1905

1926 Weiss, H. B. F. C. and his "History of Insects." (In Ent. News. v. 37, p. 212–14. July, 1926)

1927 ————. The first book on insects printed in American and its author. (In Amer. Collector. v. 5, no. 1, p. 22–4. Oct., 1927)

CRESSON, Ezra Townsend. 1838–1926

1926 Calvert, P. P. E. T. C. (In Science. n. s. v. 64, p. 8–9. July 2, 1926)

Ent. News, v. 37, p. 161–63. port. June, 1926.

A special number of the Transactions of the American Entomological Society is to be devoted to Cresson.

CREVÈCOEUR, Michael Guillaume St. Jean de. 1735–1813

1906 Sanborn, F. B. The "American Farmer" and his famous letters. (In Pennsylvania Mag. Hist. & Biog. v. 30, p. 257–86, 1 pl. 1906)

CROOM, Hardy Bryan. 1797–1837

1837 Hawks, F. L. H. B. C. (In Croom's Catalogue of Plants of New Bern, N. C. N. Y. 1837. pref. 10 p.

See also v. 1, p. 175–76.

CUTBUSH, Edward. 1772–1843

1923 Pleadwell, F. L. E. C., M.D., the Nestor of the Medical Corps of the Navy. (In Annals of Med. Hist. v. 5, p. 337–86, illus. 1923)

See also Kelly & Burrage. Dict. Amer. Med. Biog. 1928.

See also v. 1, p. 176.

CUTBUSH, JAMES. 1788–1823

1919 Smith, E. F. J. C., American chemist. Phila. Lippincott, 1919. 94 p. port.

See also v. 1, p. 176.

DEANE, Samuel. 1733–1814

1893 Maine Board Agric. 35th Ann. Rept. for 1892. 1893. Appx. p. 10–1.

DEARBORN, Henry Alexander Scammell. 1783–1851

1907 Nat. Cycl. Amer. Biog. v. 9, p. 323. 1907.

*DELILE, Alire RAFFENEAU—1778–1850

1859 Joly, N. A. R. D. Toulouse, 1859. (In Acad. Imp. Sc. Inscript. et Belles Lettres de Toulouse. Mem. v. 3, p. 63–98. 1859). Bibliography. p. 93–8.

1921 Torrey Bot. Club. Mem. v. 16, p. 292. 1921.

1926 Bartonia. no. 9, p. 37. Oct. 1926.

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1004.

DENKE, Christian Frederick. 1775–1838

1921 Torrey Bot. Club. Mem. v. 16, no. 3, p. 292. July, 1921.

1926 Bartonia. no. 9, p. 37. Oct., 1926. (J. H. Barnhart).

DICKESON, Montroville Wilson. 1810–1882

1900 Univ. Penn. Mus. Sc. & Art. Bull. v. 2, p. 113–15, ft. note. Jan. 1900.

DOUGLAS, David. 1798–1834

1836 Companion to Bot. Mag. ed. by W. J. Hooker. Lond. 1836. v. 2, p. 79–182.

Repr. [Lond. 1836] 104 p.

Repr. in Oregon Hist. Soc. Quart. (see v. 1, p. 179). Add to citations given, v. 6, p. 206–27, 285–309, 417–49. 1905.

1926 Cooper, Neville. D. D. (In Gardener's Chronicle. Lond. 1926. v. 80, p. 250–51)

Guthrie, J. D. Where Douglas pioneered. (In Scientific Mthly. v. 22, p. 81–6, illus. pl. port. July, 1926)

See also v. 1, p. 179.

DOWNING, Andrew Jackson. 1815–1852

1853 Curtis, G. W. A. J. D. (In Downing's Rural essays. N. Y. 1853. pref. p. 11–58)

Another ed. 1854.

1925 Proctor, J. C. Tragic death of A. J. D. and the monument to his memory. Wash. D. C., 1925. (In Columbia Hist. Soc. Records. v. 27, p. 248–61, pl. port.

See also v. 1, p. 179.

DROWNE, Solomon. 1753–1834

1924 Gillingham, H. E. S. D. (In Pennsylvania Mag. Hist. & Biog. v. 48, p. 227–50. 1924)

See also v. 1, p. 179.

DU SIMITIERE, Pierre Eugene. –1784

1889 Potts, W. J. Du Simitiere, artist, antiquary, and naturalist, projector of the first American museum, with some extracts from his note-book. (In Pennsylvania Mag. Hist. & Biog. v. 13, p. 341–75. 1889)

EATON, Amos. 1776–1842

1860 Durfee, Calvin. A sketch of the life and services of . . . A. E. Bost. Williams, 1860. 20 p. port. (Bibliography, p. 20)

1924 Baker, R. P. Rensselaer Polytechnic Institute and the beginnings of science in the U. S. (In Scientific Mthly. v. 19, p. 337–56, port. Oct. 1924)

See also v. 1, p. 180.

ENSLEN, Aloysius. –1818

1926 Bartonia. no. 9, p. 38. Oct. 1926.

FRANCIS, John Wakefield. 1789–1861

1861 Mott, Valentine. J. W. F. N. Y. S. S. Wood, 1861. 33 p.

See also v. 1, p. 184.

FRASER, John. 1750–1811

1836 Companion to the Bot. Mag. ed. by W. J. Hooker. Lond. 1836. v. 2, 300–5, port.

See also v. 1, p. 184.

FREMONT, John Charles. 1813–1890

1928 Nevins, Allan. F., the West's greatest adventurer . . . N. Y. Harper, 1928. 2 v. illus. pl. port. maps.
v. 1, 9+p. 1–344; v. 2, p. 345–738. Critical bibliography, v. 2, p. 715–23. See also v. 1, p. 184–85.

FRUEAUFF, Eugene Alexander. 1806–1879

1921 Torrey Bot. Club. Mem. v. 16, p. 293. July, 1921.

GARRETT, Andrew. 1823–1887

1888 West Amer. Scientist. San Diego, Calif., Feb. 1888. v. 4, p. 19–20. (By E. V. Cooper).

GATTINGER, Augustin. 1825–1903

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 456–57.
See also v. 1, p. 186.

GOODALE, George Lincoln. 1839–1923

1923 Harvard Graduates Mag. v. 32, p. 54–9, port. 1923.

1925 Ames, Oakes. G. L. G. (In Amer. Acad. A. & Sc. Proc. v. 59, p. 640–44. Jan. 1925)

1926 Robinson, B. L. G. L. G. (In Nat. Acad. Sc. Mem. v. 21, no. 6. 19 p. port. 1926)
Bibliography, p. 9–19. See also v. 1, p. 188.

GOODALE, Stephen Lincoln. 1815–1897

1917 Bailey's Cycl. Amer. Agric. 1917. v. 4, p. 577–78, port.

GOODE, George Brown. 1851–1896

1901 Goode, G. B. A Memorial of G. B. G., together with a selection of his Papers on Museums and on the History of Science in America. Wash. Gov't Print. Off., 1921. 12+515 p. 109 port. (In U. S. Nat. Mus. Ann. Rept. for 1897. pt. 2)
Memoir of Goode, by S. P. Langley, p. 39–61, port; Bibliography, by R. I. Geare, p. 479–500. For list of contents see v. 1, p. 54: GOODE, (1)–(7).

GREEN, Jacob. 1790–1841

1923 Smith, E. F. J. G., chemist. Phila., 1923. 34 p. port.
See also v. 1, p. 189.

GREENLEAF, Moses. 1777–1834

1893 Maine Bd. Agric. 35th Ann. Rept. for 1892. 1893. appx. p. 5–10. (Agric. Bibliog. of Maine, by S. L. Boardman)

GREGG, Josiah. –1850

1894 Bigelow, John. J. G. (In Garden & Forest. v. 7, p. 12. Jan. 10, 1894)
See also v. 1, p. 190.

GROSS, Samuel David. 1805–1884
1887 Autobiography. Phila. Barrie, 1887. 2 v.

HAGUE, Arnold. 1840–1917
1919 Iddings, J. P. A. H. (In Nat. Acad. Sc. Biogr. Mem. v. 9, p. 21–38, port. May, 1919)
Bibliography, p. 36–8.

HALDEMAN, Samuel Stehman. 1812–1880
1881 Penn. Mthly. Aug. 1881. (By C. H. Hart)
Repr. as separate, Phila. 1881. 26 p.
See also v. 1, p. 190. (All authorities except Prof. Lesley in his Memoir in the Biogr. Mem. of the Nat. Acad. Sc., give Haldeman's middle name as Stehman. Lesley gives it as Stedman, which would appear to be an oversight.)

HALE, Benjamin Ives. 1797–1863
1917 Bailey's Cycl. Amer. Agric. v. 4, p. 580.
See also v. 1, p. 191.

HALL, James. 1744–1826
1906 U. S. Nat. Mus. Ann. Rept. for 1904. 1906. p. 699.

HALL, James. 1811–1898
1922 Benjamin, Marcus. The beginning of American geology. (In Science. n. s. v. 56, p. 480–81. Oct. 27, 1922)
See also v. 1, p. 191: HALL: 1922 (Clarke)

HALLOWELL, Edward. 1809–1860
1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 515–16.

HARIOT, Thomas (also HARRIOT & HARRIOTT). 1560–1621
1878 Goode, G. B. The earliest American naturalist. N. Y. Nov. 1, 1878. (In Science News. v. 1, p. 12–3)
1890 Dict. Nat. Biog. v. 24, p. 437–39. 1890.
See also notes under "Bibliography of Books," this volume, v. 3, p. 329–30, 1590: HARIOT.
See also v. 1, p. 192.

HARRIS, Thaddeus William. 1795–1856
1926 Wade, J. S. The friendship of two old-time naturalists, T. W. H., and Thoreau. (In Scientific Mthly. v. 23, p. 152–60. Aug. 1926)
See also v. 1, p. 192.

*HARVEY, William Henry. 1811–1866
1869 Memoirs. London, 1869. 372 p.
See also v. 1, p. 192.

HASTINGS, Seth. 1780–1861
1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 540–41.

HECKEWELDER, John Gottlieb Ernestus. 1743–1823

1847 Life of J. G. E. H., by Edward Rondthaler, ed. by B. H. Coates. Phila. 1847. 149 p. port.

HEERMANN, Adolphus L. 1818–1865

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 551.

HEPBURN, James. 1811–1869

1926 Swarth, H. S. J. H., a little known Californian ornithologist. (In Condor. v. 28, no. 6, p. 249–53. 1926)
Collected between 1852 and 1868.

HERING, Constantine. 1800–1880

1920 Kelly & Burrage. Amer. Med. Biog. 1920. p. 517–19.
Also in Kelly, H. A. Cycl. Amer. Med. Biog. 1912. v. 1, p. 400–1.

HERRICK, Edward Claudius. 1811–1862

1862 Thatcher, T. A. E. C. H., librarian of Yale College. New Haven, Stafford, 1862. 42 p.
Repr. from the "New Englander," Oct. 1862.
See also v. 1, p. 194.

HOCHSTEIN, Anton. 1829–1911

1927 Weiss, H. B., & Schott, F. A. H., illustrator of Trimble's "Insect enemies of fruit and fruit trees." (In Ent. News. v. 38, p. 1–4, port. Jan. 1927)

HOLMES, Ezekiel. 1801–1865

1865 Agric. Maine. 1865. p. 205–26.

1893 Maine Bd. Agric. 35th Ann. Rept. for 1892. 1893. p. 44–6.

HOLMES, Oliver Wendell. 1809–1894

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 583–86.

HOPPIN, Washington. 1827–1867

1925 Weiss, H. B. W. H., M. D., illustrator of Jaeger's "Life of N. A. Insects." (In Ent. News. v. 36, p. 257–62, pl. Nov. 1925)

HORNER, William Edmonds. 1793–1853

1920 Kelly & Burrage. Amer. Med. Biog. 1920. p. 555–58.
Also in Kelly, H. A. Cycl. Amer. Med. Biog. 1912. v. 2, p. 7–11, port.

1923 Middleton, W. S. W. E. H. (In Annals Med. Hist. v. 5, p. 33–44, port. 1923)
Bibliography, p. 44. See also v. 1, p. 196.

HORR, Asa. 1817–1896

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 597–98.

HORSFIELD, Thomas. 1773–1859

1926 Bartonia. no. 9, p. 38. Oct. 1926. (J. H. Barnhart)

JAEGER, Benedict. 1789–1869

1922 Weiss, H. B. Prof. B. J., early entomologist, of N. J. (In N. J. Hist. Soc. Proc. n. s. v. 7, p. 196–207. July, 1922)

JEFFERSON, Thomas. 1743–1826

1887 Tompkins, H. B. Bibliotheca Jeffersoniana: a list of books written by or relating to T. J. N. Y. Putnam, 1887. 187 p.

1905 Johnston, R. H. A contribution to a bibliography of T. J. Wash. 1905. 73 p.

1919 Patton, J. S. T. J.'s contributions to natural history. (In Nat. Hist. v. 19, p. 405–10, Apr. 1919)

Also (In Univ. Va. Alumni Bull. ser. 3, v. 12, p. 409–15. Aug. 1919)

1926 Lucas, F. A. T. J., palaeontologist. (In Nat. Hist. v. 26, p. 328–30. Je. 1926)

See also v. 1, p. 199.

*JEFFREY, John.

Photographic reprod. of his Rept. of a Botanical Exped. to Oregon. 34 p. (By Andrew Murray).

Copies in Arnold Arboretum & U. S. Dept. Agric. Libraries.

See also v. 1, p. 199.

JOSSELYN, John. fl. 1630–1675

1860 Tuckerman, Edward. J. J. Worcester, Mass., 1860. (In Amer. Antiq. Soc. Arch. Amer. Trans. & Coll. v. 4, p. 105–238)

Repr. Bost. Veazie, 1865. 169 p.

1927 Lloyd Library. Bull. no. 26 (Reprod. ser. no. 8). 64 p. 1927.

See also v. 1, p. 200.

*KALM, Pehr. 1715–1779

1888 Garman, Samuel. The "Batrachia of Kalm's "En Resa til Norra America." (In Essex Inst. Bull. v. 20, p. 90–100. 1888)

1903 Trotter, Spencer. Notes on the ornithological observations of P. K. (In Auk. v. 20, p. 249–62. July, 1903)

1907 ———— P. K.'s "Travels." (In Pop. Sc. Mthly. v. 71, p. 413–19. Nov. 1907)

See also v. 1, p. 200.

KEATING, William Hippolitus. 1799–1840

1919 Smith, E. F. W. H. K. (In his Chemistry in Old Phila. 1919. p. 85–6)

See also v. 1, p. 200.

KELLOGG, Albert. 1813–1887

1887 West Amer. Scientist. v. 3, p. 140–41. 1887.
See also v. 1, p. 200.

KIN, Matthias. –1825

1914 Jellett, E. C. M. K. (In his Germantown gardens & gardeners. Phila. 1914. p. 74–6)

1926 Bartonia. no. 9, p. 38–9. Oct. 1926.
See also v. 1, p. 201.

KITCHELL, William. 1827–1861

1886 N. J. Geol. Surv. Ann. Rept. for 1885. Trenton, 1886. p. 162 (ft. note). (By G. H. Cook)

KLIPPART, John Hancock. 1823–1878

1876 Biogr. Encycl. Ohio. 1876. p. 213–15.

1917 Bailey's Cycl. Amer. Agric. 1917. v. 4, p. 590–91.
See also v. 1, p. 201.

KURZ, Friedrich. 1818–1871

1928 Bushnell, D. I., Jr. F. K., artist-explorer. Wash. 1928. (In Smith Inst. Ann. Rept. for 1927. p. 507–27, illus. pl.)

LEA, Isaac. 1792–1886

1874 Lea, I. Index to v. 1–13: Observations on the genus Unio . . . read before the Amer. Phil. Soc. & the Acad. Nat. Sc. Phila., from 1827 to 1874, by I. Lea . . . Phila. Collins, printer, 1874. 29 p. 4°.
For contents of these papers, see U. S. Nat. Mus. Bull. no. 23. Wash. 1885. 278 p. (N. P. Scudder).
See also v. 1, p. 202–3: LEA, I.

LE CONTE, Lewis. 1782–1838

1888 Biol. Soc. Wash. Proc. v. 4, p. 61–2. 1888. (By G. B. Goode).
Repr. in U. S. Nat. Mus. Ann. Rept. 1897. p. 444. 1901.
See also v. 1, p. 204.

LEIDY, Joseph. 1823–1891

1923 Middleton, W. S. J. L. (In Annals Med. Hist. v. 5, p. 100–12, pl. port. 1923)

1925 Van Cleave, H. J. A critical study of the Acanthocephala described and identified by J. L. (In Acad. Nat. Sc. Phila. Proc. v. 76, p. 279–334. 1925)
See also v. 1, p. 204–5.

LINTON, Moses L. 1808–1872

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 748.

LOGAN, James. 1674–1751

1893 Dict. Nat. Biog. v. 34, p. 81–3. 1893.
See also v 1, p. 208.

LYON, John. –1818

1926 Bartonia. no. 9, p. 39–40. Oct. 1926.
See also v 1, p. 208.

MacFARLANE, James. 1819–1885

1891 White, I. C. J. M. (In Amer. Geol. v. 7, p. 145–49, port. 1891)

MACLURE, William. 1763–1840

1924 Merrill, G. P. W. M. (In his First 100 years Amer. Geol. 1924. p. 31–7, port.)

1925 Keyes, Charles. W. M., father of modern geology. (In Pan-Amer. Geol. v. 44, p. 81–94, port. Sept. 1925)
See also v. 1, p. 208–9.

McMURTRIE, Henry. 1793–1865

1893 Durrett, R. T. H. M. (In Filson Club. Pub. no. 8. 1893. p. 92–4, ftnote)

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 795.

McREE, James Fergus. 1794–1869

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 798–99.
See also v. 1, p. 209, where McRee's name is spelled incorrectly.

*MADIANNA, Jean Baptiste Ricord. 1787–1827

1921 Torrey Bot. Club. Mem. v. 16, p. 296. 1921.

MANIGAULT, Gabriel Edward. 1833–1899

1920 Kelly & Burrage. Amer. Med. Biog. 1920. p. 758.

MELLICHAMP, Joseph Hinson. 1829–1903

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 830.
See also v. 1, p. 211.

MELSHEIMER, Frederick Ernst. 1782–1873

MELSHEIMER, Frederick Valentine. 1749–1814

1884 Hagen, H. A. The M. family and the M. collection. (In Canadian Ent. v. 16, p. 191–97. 1884)
See also v. 1, p. 211–12.

MICHAUX, André. 1746–1802

1804 Deleuze, J. P. F. A. M. Paris, 1804. (In Mus. Nat. d'Hist. Nat. Annales. v. 3, p. 191–227)

1805 ————. Memoirs of the life and botanical travels of A. M. Lond. 1805. (In Annals of Botany ed. by Konig & Sims. v. 1, p. 321–55)
A transl. of the preceding article.

1886 Sargent, C. S. Some remarks upon the journey of A. M. to the high mountains of Carolina in December, 1788, in a letter . . . to Asa Gray. (In Amer. J. Sc. ser. 3, v. 32, p. 466–73. Dec. 1886)

1923 Rehder, Alfred. Michaux's earliest note on American plants. (In Arnold Arboretum. Jour. v. 4, p. 1–8. Jan. 1923)
M.'s "Notice de quelques plantes" (in Jour. d'Hist. Nat. ed. by Lamarck & Bruguiere)

1926 Missouri Bot. Gard. Bull. v. 15, p. 42–54, port. Mar. 1927. (Two botanists of frontier days).
See also v. 1, p. 212.

MICHAUX, François André. 1770–1855

1860 Soc. Imp. et Cent. Agric. France. Rept. for 1859. 1860. p. 477–509.

1927 Missouri Bot. Gard. Bull. v. 15, p. 42–54, port. Mar. 1927. (Two botanists of frontier days).
See also v. 1, p. 212.

MITCHELL, John. 1680–1772

1894 Dict. Nat. Biog. v. 38, p. 70. 1894.

1921 Carrier, Lyman. Dr J. M., naturalist, cartographer, and historian. (In Amer. Hist. Assoc. Ann Rept. for 1918. Wash. 1921. p. 199–220)
Repr. in Agric. Hist. Soc. Papers. v. 1, p. 199–219. 1921.
See also v. 1, p. 212.

MITCHILL, Samuel Latham. 1764–1831

1922 Smith, E. F. S. L. M., a father in American chemistry. N. Y. Columbia Univ. Press, 1922. 24 p. port.
See also v. 1, p. 213.

MORGAN, John. 1735–1789

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 868–70.

MORRIS, Oran Wilkinson. 1798–1877

1877 Torrey Bot. Club. Bull. v. 6, p. 166–67. 1877.

MORSE, Edward Sylvester. 1838–1925

1926 Dall, W. H. E. S. M. (In Science. n. s. v. 63, p. 157–58. Feb. 6, 1926)
Johnson, C. W. E. S. M. (In Nautilus. v. 39 p. 135–37, port. 1926)
Maine Naturalist. v. 5, p. 155–58, port. 1926.
See also p. 213 of v. 1 of this Bibliography.

*MURRAY, Alexander. 1810–1884

1883 Bell, Robert. A. M. (In Canadian Record of Science. v. 5, p. 77–96, port. 1883)

NEWCOMB, Wesley. 1808–1892

1888 Stearns, R. E. C. W. N. (In West Amer. Scientist. v. 4, p. 1–3. Jan. 1888)
See also p. 215 of v. 1 of this Bibliography.

NICOLLET, Joseph Nicolas. 1786–1843

1925 Keyes, Charles. Early geological explorations of J. N. N. in the Mississippi Valley. (In Pan-Amer. Geol. v. 43, p. 321–32, pl. June, 1925)

The Library of Congress, MSS Division contains numerous miscellaneous manuscripts of N. Includes journals, sketches, maps, reports, diaries, etc. See Nicollet's Explor. Upper Mississippi (1836), v. 2, p. 619–21. See also v. 1, p. 215.

NOTT, Joseph Clark. 1804–1873

1928 Kelley & Burrage. Dict. Amer. Med. Biog. 1928. p. 910–11.

NUTTALL, Thomas. 1786–1859

1899 Coville, F. V. The botanical explorations of T. N. Wash. 1899. (In Biol. Soc. Wash. Proc. v. 13, p. 109–21)

1925 Powers, W. H. T. N. (In Science. n. s. v. 62, p. 389–91. Oct. 30, 1925)

See also v. 1, p. 215.

OLNEY, Stephen Thayer. 1812–1878

1880 Torrey Bot. Club. Bull. v. 7, p. 116–17. 1880. (Presentation of O.'s herbarium to Brown Univ.)

See also v. 1, p. 216.

OSTEN-SACKEN, Baron Carl Robert. 1828–1906

1903 Can. Ent. v. 35, p. 344–46. 1903. (Rev. of his Autobiography).

See also v. 1, p. 216.

OWEN, David Dale. 1807–1860

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 927–28.

See also v. 1, p. 216–17.

PARMENTIER, André Joseph Ghislain. 1780–1830

1869 Stiles, H. R. Hist. Bklyn. 1869. v. 2, p. 173–74.

1904 Meehan, T. F. A. P., horticulturist & his daughter, Madame Bayer. (In U. S. Catholic Hist. Soc. Records. v. 3, p. 440–54. Dec. 1904)

1922 Bklyn. Botanic Garden Record. v. 11, p. 115–18. Oct. 1922.

1923 Bklyn. Botanic Garden Record. v. 12, p. 119–25. Oct. 1923.

1926 Gager, C. S. A. P. (In Bklyn. Botanic Garden Record. v. 15, p. 10–5. Jan. 1926)

PARRY, Charles Christopher. 1823–1900

1890 Orcutt, R. C. C. C. P. (In West Amer. Scientist. San Diego, Calif. v. 7, p. 1–5, port. June, 1890)

See also p. 217–18 of v. 1 of this Bibliography.

PEABODY, William Bourn Oliver. 1799–1847

1850 Literary remains. Bost. B. H. Greene, 1850, [4] + 448 p. port.

See also v. 1, p. 218 of this Bibliography.

PEALE, Titian Ramsay. 1800–1885

MSS of his Journey on Long's Exped. 1819 & MSS of his Journals 1832–1842 on Wilkes Exped. in MSS Div. of Library of Congress.

See also v. 1, p. 218 & v. 3, p. 710.

PEALE, Charles Willson. 1741–1827

1907 Bibbins, A. B. C. W. P.'s painting, 'The exhuming of the first American Mastodon (Newburg). (In Geol. Soc. Amer. Bull. v. 18, p. 650–52, port. 1907)

1914 Pa. Mag. Hist. & Biog. v. 38, p. 257–86, port. 1914 (H. W. Sellers).

See also v. 1, p. 218.

PHELPS, Edward Elisha. 1803–1880

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 964–65.

PIPER, Richard Upton. 1816–1897

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 970.

POINSETT, Joel Roberts. 1779–1851

1888 Pa. Mag. Hist. & Biog. v. 12, p. 129–64, 257–303, port. 1888.

See also v. 1, p. 220.

PRENTISS, Daniel Webster. 1843–1899

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 988.

See also v. 1, p. 221.

*RAFFENEAU-DELILE, Alire de, see DELILE, Alire RAFFENEAU—

RAFINESQUE-SCHMALTZ, Constantine Samuel. 1783–1840

1924 Medical Life. v. 31, p. 155–58. Apr. 1924.

From the "Lexington, Ky. Herald," Mar. 1, 1924. Account of the transfer of body of R. from Philadelphia to Transylvania College.

Science. n. s. v. 49, p. 553–54. June 20, 1924. (Bones of R. by D. S. Jordan).

See also p. 222–23 of v. 1 of this Bibliography.

RANDALL, John Witt. 1813–1892

1892 Psyche. v. 6, p. 316. Sept. 1892.

RAVENEL, Edmund. 1797–1870

1928 Bragg, L. M. Chapters for a history of the Charleston Museum: Dr. E. R. (In Charleston, S. C. Mus. Contr. no. 6)

See also v. 1, p. 223.

RILEY, Charles Valentine. 1843–1895

1895 Ent. Soc. Wash. Proc. v. 3, p. 293–98, port. 1895

Can. Ent. v. 27, p. 273–74, port. 1895.

See also v. 1, p. 224.

ROBINSON, Coleman Townsend. 1838–1872
1872 Can. Ent. v. 4, p. 109–11, 118. 1872.
1925 Ent. News. v. 36, p. 309, port. 1925.

ROEPPER, William T. 1810–1880
1880 Amer. J. Sc. ser. 3, v. 19, p. 340. 1880.

ROTHROCK, Joseph Trimble. 1839–1922
1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1062–64.
See also v. 1, p. 226.

RUFFIN, Edmund. 1794–1865
1895 U. S. Dept. Agric. Year-book, 1895. p. 493–502, port.
1917 Bailey's Cycl. Amer. Agric. v. 4, p. 609–10. 1917.
1919 Swem, E. G. Bibliography of E. R. (In Va. State Library. Bull. v. 11, no. 3, 4. p. 41–144.) Richmond, Va., 1919.
See also v. 1. p. 226.

RUGEL, Dr.
1879 Torrey Bot. Club. Bull. v. 6, p. 311–12. 1879.

SARGENT, Winthrop. 1753–1820
1926 Bartonia. no. 9, p. 41–2. Oct. 1926. (J. H. Barnhart)
See also v. 1, p. 226.

SAY, Thomas. 1797–1834
1927 Weiss, H. B. The communism of T. S. (In N. Y. Ent. Soc. Jour. v. 35, p. 231–39. Sept. 1927)
Dr. Weiss is at present working on a comprehensive biography of T. S. See also v. 1, p. 227.
1928 Barber, H. S. T. S.'s unrecorded journey in Mexico. (In Ent. News. v. 39, p. 15–20. Jan. 1928)

*SCHOEPF, Johann David. 1752–1800
1924 Toepffer, Adolph. J. D. S., a pioneer of American botanical exploration. (In Torreya. v. 24, no. 4, p. 57–8. 1924)
See also v. 1, p. 227.

SCHWEINITZ, Lewis David de. 1780–1834
1917 Shear, C. L., and Stevens, N. E. Studies of the Schweinitz collections of Fungi. (In Mycologia. v. 9, p. 191–204, 333–44, 2 pl. July & Nov. 1917)
See also v. 1, p. 228.

SEYBERT, Adam. 1773–1825
1919 Smith, E. F. A. S. (In his Chemistry in Old Phila. Phila. 1919. p. 24–43)
1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1096–97.
See also v. 1, p. 229.

SEYBERT, Henry. 1801–1883

1919 Smith, E. F. H. S. (In his Chemistry in Old Phila. Phila. 1919. p. 45–52)

See also v. 1, p. 229.

SHIMER, Henry. 1828–1895

1895 Ent. News. v. 6, p. 305–6, port. 1895.

SHUMARD, Benjamin Franklin. 1820–1869

1869 Yandell, L. P. B. F. S. Indianapolis, 1869. (In Western Jour. Med. v. 4, p. 738–49)

See also v. 1, p. 230.

SHUMARD, George Getz. 1825–1867

1867 Cincinnati Lancet & Observer. n. s. v. 10, p. 700. 1867.
Cincinnati Jour. Med. v. 2, p. 694. 1867.

See also v. 1, p. 230.

SMITH, C. D. 1813–

1906 U. S. Nat. Mus. Ann. Rept. for 1904. 1906. p. 711.

SMITH, George. 1804–1882

1882 Pa. Mag. Hist. & Biog. v. 6, p. 182–88. 1882. (J. L. Levick)

See also v. 1, p. 231.

SMITH, Jerome Van Crowningshield. 1800–1879

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1128–29.

See also v. 1, p. 231.

SMITH, Capt. John. 1579–1631

1884 Arber, Edward, ed. . . . Capt. John Smith's . . . Works. 1608–1631. Birmingham, England. 1884. 136 + 934 p. (English Scholar's Library, no. 16)

Repr. of all of S's writings. See also A's art. in Encyclopaedia Britannica. Also the Dictionary Nat. Biog.

1901 Goode, G. B. J. S. (In U. S. Nat. Mus. Ann. Rept. 1897. pt. 2. Wash. 1901. p. 371–72)

Repr. from Biol. Soc. Wash. Proc. v. 3, p. 55–6. 1886.

SMITH, John Jay. 1798–1881

1892 Recollections. Phila. Lippincott, 1892. 16 + 416 p. pl. port.

See also v. 1, p. 231.

SMITH, Peter. 1733–1816

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1137–38.

SMITH, Sidney Irving. 1843–1926

1926 Science. n.s. v. 64, p. 57–8. July 16, 1926. (By A. E. Verrill.)

STEVENS, Isaac Ingalls. 1818–1862

1900 Stevens, Hazard. Life of I. I. S. Bost. Houghton, 1900. 2 v. illus. pl. port.

See also v. 1, p. 232.

STEWARDSON, Thomas. 1807–1878

1883 College of Physicians Phila. Trans. ser. 3, v. 7. 1883.
Also printed as a separate, 22 p.

STORER, David Humphreys. 1804–1891

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1174–75.

See also v. 1, p. 232.

STRETCH, Richard H. 1837–1926

1920 Ent. News. v. 31, p. 181–85, port. 1920.

SULLIVANT, Joseph. 1809–1882

1917 Bailey's Cycl. Amer. Agric. 1917. v. 4, p. 617.

THACHER, James. 1754–1844

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1195–96.

THOMAS, David. 1776–1859

1926 Bartonia. no. 9, p. 42. Oct. 1926. (J. H. Barnhart.)

THORBURN, Grant. 1773–1863

1915 Bailey's Standard Cycl. Hort. v. 3, p. 1600. 1915.

See also v. 1, p. 234.

THOREAU, Henry David. 1817–1862

1926 Wade, J. S. The friendship of two old-time naturalists (T. W. Harris & H. T.). (In Scientific Mthly. v. 23, p. 152–60. Aug. 1926)

1927 ————. Some insects of Thoreau's writings. (In N. Y. Ent. Soc. Jour. v. 35, p. 1–21, pl. Mar. 1927)

TRUE, Nathaniel Tuckerman. 1812–1887

1891 Lapham's Hist. of Bethel, Maine. 1891. p. 144–47, port.

1892 Maine Hist. Soc. Coll. & Proc. 1892. p. 225–31.

1893 Maine Board Agric. 35th Ann. Rept. for 1892. 1893. appx. p. 86–7. (Agric. Bibliog. of Maine, by S. L. Boardman).

ULKE, Henry. 1821–1910

1910 Ent. Soc. Wash. Proc. v. 12, p. 105–11, port. 1910.
Ent. News. v. 21, p. 99–100, port. 1910.

VAUGHAN, Benjamin. 1751–1835

1893 Maine Board Agric. 35th Ann. Rept. for 1892. 1893. appx. p. 1–5. (Agric. Bibliog. Maine by S. L. Boardman)

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1245–47.
See also Dict. Nat. Biog. v. 48, p. 158.

VAUGHAN, Charles. 1759–1839

1893 See preceding reference under Benjamin V.

VERRILL, Addison Emery. 1839–1927

1927 Amer. J. Sc. ser. 5, v. 13, p. 377–87, port. May, 1927. (By W. R. Coe)
Science. n.s. v. 66, p. 28–9. July 8, 1927. (By W. R. Coe)
See also v. 1, p. 237.

WARDER, John Aston. 1812–1883

1915 Bailey's Standard Cycl. Hort. v. 3, p. 1602. 1915.
1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1257.
See also v. 1, p. 238.

WARE, Nathaniel A. 1780–1854

1923 N. Y. Bot. Gard. Jour. v. 24, p. 21, ft note, 1923.

WILDER, Marshall Pinckney. 1798–1886

1887 Strong, W. C. & others. M. P. W. (In Mass. Hort. Soc. Trans. 1887. pt. 1, p. 10–8, port.)
See p. 240 of v. 1 of this Bibliography.

WILLIAMS, Stephen West. 1790–1855

1920 Kelly & Burrage. Amer. Med. Biog. 1920. p. 1241–42.
Also in Kelly, H. A. Cycl. Amer. Med. Biog. 1912, v. 2, p. 511–12.

WILLIAMSON, Hugh. 1735–1819

1820 Hosack, David. H. W. Memoir read before N. Y. Historical Society. N. Y. 1820. 91 p.
Another ed. N. Y. 1821. 78 p.
1920 Kelly & Burrage. Amer. Med. Biog. 1920, p. 1243.
Also in Kelly, H. A. Cycl. Amer. Med. Biog. 1912. v. 2, p. 513–15.

WINSLOW, Charles Frederick. 1811–1877

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1315.
See also v. 1, p. 241.

WISTAR, Caspar, Jr. 1761–1818

1894 Pa. Mag. Hist. & Biog. v. 18, p. 90–6. 1894.
1922 Middleton, W. S. C. W. (In Annals Med. Hist. N. Y. 1922. v. 4, no. 1, p. 64–76, port. pl.)
Bibliography, p. 76. See p. 242 of v. 1 of this Bibliography.

WOOD, William. 1810–1899

1920 Kelly & Burrage. Amer. Med. Biog. 1920, p. 1260.
Also in Kelly, H. A. Cycl. Amer. Med. Biog. 1912. v. 2, p. 527–28.

WOODHOUSE, James. 1770–1809

1918 Smith, Edgar F. J. W. Phila. Winston, 1918. 299 p. port.
1920 Kelly & Burrage. Amer. Med. Biog. 1920. p. 1261.
Also in 1928 ed. p. 1330–31.

WYTHE, Joseph Harry. 1822–1901

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1346–47.

XÁNTUS, János. 1825–1894

1858 Levelei Ejszakameri kából . . . Budapest, Prépost, 1858. 175 p. illus. pl.
Letters from N. A. A collector for the Smithsonian during the fifties.

YOUNG, Aaron, Jr. 1819–1898

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928 p. 1349–50.

YOUNG, John Richardson. 1782–1804

1928 Kelly & Burrage. Dict. Amer. Med. Biog. 1928. p. 1352–53.

YOUNG, William, Jr. 1742–1785

1894 Britten, James. W. Y. and his work. (In Jour. Bot. v. 32, p. 332–37. 1894)
See also v. 1, p. 244.

ZIEGLER, Daniel. 1804–1876

1885 Hagen, H. A. D. Z. (In Canadian Ent. v. 17, p. 132–33. 1885)

ZIMMERMAN, Christian. 1800–1867

1889 Hagen, H. A. C. Z. (In Canadian Ent. v. 21, p. 53–7, 71–3. 1889)

HUDSON (N. Y.) ASSOCIATION FOR IMPROVEMENT IN SCIENCE (1819)

According to S. E. Dwight, in the Amer. J. Sc. v. 10, p. 372, 1826, there was founded in 1819, at Hudson, N. Y., the Hudson Association for Improvement in Science. Its active stimulator and instigator was Amos Eaton, the famous Naturalist, who was at that period delivering lectures on Natural History in the various towns along the Hudson River. Its first president was Austin Abbot. Very little is known of the subsequent history of the Institution.

ERRATA & ADDENDA

IN VOLUME I

p. 54, 9th line from bottom, should read 1897, **not** 1847.
p. 77, PALMER, Theodore Sherman, **not** as printed.
p. 90, Reference under TEDDER is to the Encyclopaedia Britannica, 11th–12th edition.
p. 158, AKERLY, **not** Akerley.
p. 163, BARRATT, **not** Barrett.
p. 164, under BECK, L. C., 1870: should read Albany Inst. Trans. **not** Proc.
p. 165, BERLANDIER, Jean Louis, **not** as printed.
p. 167, BRACKENBRIDGE, William Dunlop.
p. 168, BRINCKLE, William Draper, should read 1798–1862.
p. 171, CHAPMAN, Alvan Wentworth, **not** Alvin W. C.
p. 175, COZZENS, Issachar, Jr., **not** as printed.
p. 177, under DARLINGTON, William:
1863 Amer. Phil. Soc. Proc. v. 9, p. 330–42, **not** 330–43.
1886 Minn. Acad. Nat. Sc. Bull. v. 3, no. 13, **not** v. 13.
p. 179, DOUGLASS, David Bates, **not** as printed.
p. 182, under ENGLEMANN: 1884: PARRY.
Should read Davenport Acad. Sc. Proc. v. 4, **not** v. 14.
p. 183, FLINT, Charles Louis, **not** as printed.
p. 187, GLOVER, Townend, **not** Townsend.
p. 190, HALDEMAN, Samuel Stehman, **not** Stedman.
p. 192, *HARTWEG, Carl Theodor, **not** as printed.
p. 198, line following JAMES, Edwin, should read, Albany Inst. Trans., **not** Proc.
p. 202, 4th line from bottom, should read SCUDDER, N. P., **not** S. H.
p. 207, 6th line from top, should read BLANKENSHIP.
p. 208, dates following MACBRIDE, J., should read 1784–1817.
p. 212, *MICHAUX, François André, **not** as printed.
The reference under 1859 should read p. 222–27.
p. 219, PIKE, Nicolas, **not** as printed.
p. 220, *POEY Y Aloy, Felipe, **not** as printed.
p. 221, PRESCOTT, William. 1788–1875, **not** as printed.
p. 224, line following RICH, O., should read, Wash. Acad. Sc. Jour.
p. 224, line beginning with RIDDEL, should read RIDDELL.
p. 224, dates following RILEY, C. V., should read 1843–1895.
p. 226, to line following RUSSELL, J. L., should be added p. 106–8. 1874.
p. 227, first line, should read SARTWELL, Henry Parker.
p. 228, under SCHWEINITZ, L. D., de, line beginning with 1902: should read Plant World, **not** Pittonia.
p. 229, SHEPARD, C. U., **not** as printed.
p. 230, SMITH, Aubrey Henry, **not** as printed.
p. 236, VAN RENSSELAER, Stephen, **not** as printed.
p. 242, WISTAR, Caspar, first reference should read 1818, **not** 1918.
p. 243, WOOD, Horatio Curtis, **not** as printed.

IN VOLUME II

preface, p. xii, date should read 1839, **not** 1830 as printed.
p. 28, 15th line from top, should read HORNER, W. E.
p. 29, 1845: LEA, I., 4th line should read 1834, **not** 1843.
p. 31, 10th line from top, should read WETHERILL, C. M.
p. 43, 15th line from top, should read, DROWNE, Solomon.
p. 48, 6th line from top, should read BURNETT, W. I.
p. 52, 7th line from top, should read *ANDERSSON, N. J.
p. 53, 6th line from bottom, should read *MUNRO, William.
p. 76, should read MITCHILL, S. L., **not** as printed.
p. 136, 4th line from bottom, should read SHEPARD, C. U.
p. 159, 21st line from bottom, should read PHILLIPS, J. S.
p. 165, 17th line from bottom, should read PEASE, W. H.
p. 197, 14th line from bottom, should read BORDA, Eugene.
p. 199, 22d line from top, SIMPSON, name should be spelled ENGELMANN.
p. 241, under 1864: should read LYCEUM OF NAT. HIST. OF N. Y., instead of ———— (dash), as under 1848 above. This also applies to entry under 1870.
p. 284, 16th line from bottom, should read OLMSTED, D.
p. 295, 9th line from top, should read SHEPARD, C. U.
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p. 298, 1st line from top, should read SHEPARD, C. U.
p. 298, 2d line from top, should read TAYLOR, Steuben.
p. 299, 4th line from top, should read SHEPARD, C. U.
p. 300, 8th line from top, should read WILLIAMS, S. C.
p. 302, 2d line from bottom, should read SHEPARD, C. U.
p. 303, 1st line from top, should read SHEPARD, C. U.
p. 303, 8th line from bottom, should read MEADE, William.
p. 304, 20th line from bottom should read SHEPARD, C. U.
p. 305, 3d line from top, should read SHEPARD, C. U.
p. 305, 11th line from top, should read VAN RENSSELAER, J.
p. 307, 2d line from bottom, should read STEELE, J. H.
p. 307, 12th line from bottom, should read SHEPARD, C. U.
p. 308, 14th line from top & 12th from bottom, should read SHEPARD, C. U.
p. 309, 4th & 14th line from top, & 12th line from bottom, should read SHEPARD, C. U.
p. 310, 3rd line from bottom, should read SHEPARD, C. U.
p. 312, 10th line from top & 8th from bottom, should read SHEPARD, C. U.
p. 314, 4th line from bottom, should read SHEPARD, C. U.
p. 315, 8th line from top, should read I. B. CRAWE.
p. 316, 3rd, 9th, 10th and 21st lines from bottom, should read SHEPARD, C. U.
p. 319, 7th line from top, should read SHEPARD, C. U.
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p. 324, 13th line from top, should read SHEPARD, C. U.

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p. 327, 6th line from top, should read SHEPARD, C. U.
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p. 329, 15th line from top, should read SHEPARD, C. U.
p. 330, 1st line from top, should read SHEPARD, C. U.
p. 336, 4th line from top, should read SHEPARD, C. U.
p. 339, 11th line from top, should read JAMES, U. P.
p. 340, 16th line from top & 14th from bottom, should read SHEPARD, C. U.
p. 343, 20th line from top, should read SHEPARD, C. U.
p. 344, 7th & 12th lines from top, should read SHEPARD, C. U.
p. 344, 9th line from bottom, should read DICKESON.
p. 346, 11th line from the bottom, should read SHEPARD, C. U.
p. 347, 2d line from top, should read SHEPARD, C. U.
p. 348, 10th line from bottom, should read SHEPARD, C. U.
p. 352, 6th line from top, should read SHEPARD, C. U.
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p. 369, 2d & 15th lines from bottom, should read SHEPARD, C. U.
p. 370, line following 1858: should read HARTMAN, W. D.
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p. 375, 6th line from top, should read SHEPARD, C. U.
p. 376, 6th line from bottom, should read SHEPARD, C. U.
p. 378, 16th line from top, should read SHEPARD, C. U.
p. 385, 11th line from top, should read SHEPARD, C. U.
p. 386, 10th line from bottom, should read SHEPARD, C. U.
p. 387, 19th line from bottom, should read SHEPARD, C. U.
p. 407, 3d line from top, should read Owen MASON.
p. 408, 13th line from bottom, should read SHEPARD, C. U.
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p. 411, 16th line from top, should read SHEPARD, C. U.
p. 419, 19th line from top, should read SHEPARD, C. U.
p. 431, 5th line from top, should read James R. WILLSON.
p. 435, 19th line from top, should read TRACEY, J. G.
p. 440, 4th line from top, should read GIBBES, L. R.
p. 440, 11th line from top, should read SHEPARD, C. U.
p. 495, 18th line from top, should read TESCHEMACHER.
p. 499, 11th line from top, should read C. A. BARRY.
p. 507, 15th line from bottom, should read ROGERS, W. B.
p. 549, date in the Running Title should read (1833).
p. 564, 16th line from top, should read SHEPARD, C. U.
p. 565, 5th line from top, should read SHEPARD, C. U.
p. 565, 22d line from top, should read DANA, J. D. & WHELPLEY, J. D
p. 566, 8th & 9th lines from bottom, should read SHEPARD, C. U.
p. 567, 6th & 7th lines from top, should read SHEPARD, C. U.

p. 568, 2d & 13th lines from top, should read SHEPARD, C. U.
p. 570, first line under History, should read P. B. HOVEY, Jr.
p. 587, NATURAL HISTORY SOCIETY OF HARTFORD.
See article by T. W. HARRIS.
Reprinted in Amer. Ent. Soc. Trans. v. 44, p. 251–61. 1918. (Ed. by G. M. Greene.)
p. 656, to 1838: REYNOLDS, add 151 p. From the N. Y. Times of July, Aug. & Sept. 1837 & N. Y. Courier & Enquirer of Dec.-Jan., 1837–38.
p. 662, under v. 8, CASSIN, add Original edition: Mamalogy and Ornithology . . . Phila. Printed by C. Sherman & Son, 1858. viii, 466 p. illus. 32½ x 24 cm. Atlas, 2 p., l., 53 col. pl. 56½ x 37 cm. Lippincott ed. noted p. 662 was repr. from preceding.
p. 671, 10th line from bottom, should read W. S. SULLIVANT.
p. 693, 16th line from bottom should read SHEPARD, C. U.
p. 694, 3rd line from top & 2d from bottom, should read SHEPARD, C. U.
p. 694, 10th line from bottom, should read DICKESON.
p. 695, 16th line from top, should read DICKESON.
p. 696, 11th line from bottom, should read DICKESON.
p. 704, Running title should be: Nat. Hist. Soc. of Geneva College (1840), **not** Northern Acad. of Arts & Sciences (1841).
p. 718, 11th line from bottom, should read MORGAN, L. H.

IN VOLUME III

p. 30, CULBERTSON, Thomas, should read Thaddeus A.
p. 62, 5th line from bottom, should read WEBBER.
p. 90, 8th line from top, should read BUTTRICK.
p. 180, 12th line from bottom, should read, DICKESON.
p. 195, Running Title should read **Pacific.**
p. 197, 15th line from bottom, should read BERLANDIERE.
p. 237, 10th line from bottom, should read WYTHE.
p. 256, 9th line from top, should read DOCS.
p. 286, 3rd line from bottom, should read Svante PALM.
p. 286, 4th line from bottom, should read A. R. ROESSLER.
p. 287, 14th line from bottom, should read ser. 3, v. 33, p. 73–5.
p. 288, 21st line from the bottom, should read A. R. ROESSLER.
p. 298, 1st line at top should read REAKIRT, Tryon.
p. 415, 14th line from top, should read, James, Kay, Jr., & Co., 1834.
p. 424, 11th line from bottom, date should read 1838, **not** 1836.
p. 467, 4th line from bottom, date should read 1853, **not** 1851.
p. 487, 10th line from top, should read VEATCH, J. A.
p. 560, DANA, J. D., under Amer. Assoc. Adv. Sc. (1848), p. 62, not 61.
p. 563, DEMBITZ, page 138, not 137.
p. 578, GARLICK, T., page 7 (2) should read 8 (2).
p. 580, GIBBS, George, 11th line from top, page 278 not 277.
p. 581, GIRARD, C., under Marcy's Explor. Red River (1852), p. 146 should read 145 (BAIRD).
p. 587, HALLMAN, page no. should read 138.
p. 605, JENKINS, T. E., page 137 should read 138.

LIBRARIES OTHER THAN THOSE IN THE U. S. WHERE THIS WORK MAY BE CONSULTED

For the convenience of students in countries other than the United States a list of libraries in foreign countries where this work may be consulted is appended. This list is as complete as records permit.

ARGENTINE REPUBLIC.
Buenos Aires. Museo Nacional de Historia Natural.
AUSTRALIA.
Adelaide. University of Adelaide.
BELGIUM.
Brussels. Institute of Bibliography (?).
CANADA.
Kingston. Queen's University.
London. University of Western Ontario.
Montreal. University of Montreal.
McGill University.
Ottawa. Canadian Geological Survey.
Toronto. University of Toronto.
Winnipeg. University of Manitoba.
CHINA.
Peking. Metropolitan Library.
DENMARK.
Copenhagen. University of Copenhagen.
ENGLAND.
Birmingham. Public Library.
Hull. Hull Museum.
London. British Museum.
British Museum of Natural History.
Science Museum.
Manchester. Public Libraries.
FRANCE.
Paris. American Library.
GERMANY.
Berlin. University of Berlin.
Staats-Bibliothek.
Free State Library of Prussia.
Dresden. Sachsische Landesbibliothek.
Frankfurt-am-Main. Senckenbergische Bibliothek.
Leipzig. University of Leipzig.
Borsenvereins der Deutschen Buchhandler.
Munich. Bayerische Staats-bibliothek.
Nurnberg. Stadts-Bibliothek.
HAWAII.
Honolulu. Experiment Station. Hawaiian Sugar Planter's Association.
Bernice P. Bishop Museum.
ITALY.
Rome. International Institute of Agriculture.
JAPAN.
Kyoto. Imperial University.
Tokyo. Imperial University.
MEXICO.
Mexico City. Estudios Biologicos.
NORWAY.
Oslo. University of Oslo. Botanical Museum.
PALESTINE.
Jerusalem. Hebrew University.
POLAND.
Poznan. University of Poznan.

PORTO RICO.
Rio Piedras. University of Porto Rico.
ROUMANIA.
Cernauti. University of Cernauti.
RUSSIA.
Leningrad. Academy of Sciences.
State Library.
Moscow. All-Union Lenin Memorial Library.
SCOTLAND.
Edinburgh. Royal Scottish Museum.
Glasgow. University of Glasgow.
SPAIN.
Madrid. Junta Para Ampliacion de Estudios.
SWEDEN.
Goteborg. Public Library.
Stockholm. Royal Swedish Academy of Sciences.
Upsala. University of Upsala.
SWITZERLAND.
Basel. University of Basel.
Zurich. Zentral-bibliothek.